

**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:

APN:	0612-091-04; ~05; ~21; ~22 (portion); ~28
Applicant:	Mr. Freeman Hall SEPV8, LLC/Solar Electric Solutions, LLC 21900 Burbank Boulevard, Suite 300 Woodland Hills, CA 91367 (818) 992-3127
Community:	Twentynine Palms
Location:	West of Lear Avenue and South of Mesa Drive
Project No:	P201100095
Staff:	Doug Feremenga
Rep:	Scott Denham
Proposal:	A Conditional Use Permit to establish a 12-Megawatt Solar Photovoltaic Electricity Generation Facility on 90 acres of a 100-acre parcel.

USGS Quad: Sunfair
Lat/Long: 34°17'42.18"N
-116°15'27.07"W
T, R, Section: T01N R08E Sec. 16
Thomas Bros P4891/ GRID: C-1

Community Plan: N/A
LUZD: RL
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: Doug Feremenga, Planner
Phone No: (909) 387-4131 Fax No: (909) 387-3223
E-mail: dferemenga@lusc.sbcounty.gov

PROJECT DESCRIPTION:

SEPV8, LLC/Solar Electric Solutions, LLC ("SEPV8"/"Developer") proposes to construct and operate a 12-Megawatt (MWac) photovoltaic (PV) solar energy generation facility ("Project") on approximately 90 of the 100-acre parcel located west of Lear Avenue and south of Mesa Drive in Twentynine Palms, unincorporated San Bernardino County (County). The project also includes a Major Variance to remove the requirement for street improvements on Lear Avenue, and a Lot Line Adjustment. The project area is situated roughly in the North one-half of the Southeast one-quarter of the Northwest one-quarter of Section 16, Township 1 North, Range 8 East, S.B.B. & M. of the Sunfair, CA USGS 7.5-minute topographic quadrangle at approximately Lat/Long 34°10'27.15"N/116°09'10.00"W (See **Figure 1: Vicinity Map**).

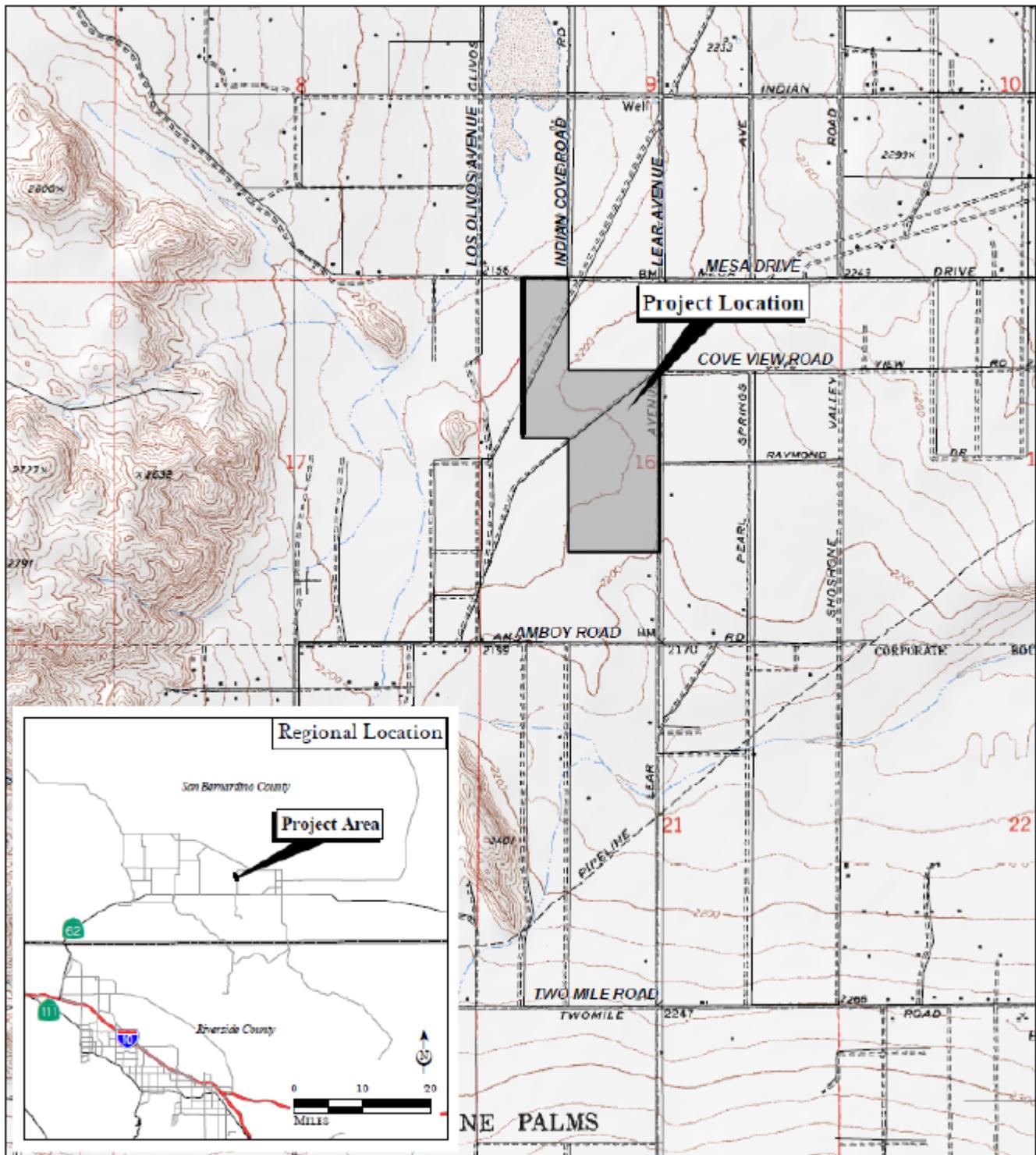


FIGURE 1: Vicinity Map



View North from the South



View Northwest from Southeast Corner



View West from the East Side



View Southwest from the Northeast Corner



View East from the West Side



East Side of the Property Looking West

Project Setting

The site is located on relatively level terrain with an elevation of 2,200 feet. The Marine Corps Air-Ground Combat Center (MCAGCC) is located five miles to the north, the incorporated boundary of Twentynine Palms is situated 0.25 miles to the south and the northern edge of Joshua Tree National Park lies 3.2 miles to the south. There are no noticeable drainages within the site and no blue-line drainages are present on the corresponding Sunfair 7.5 minute quadrangle topographic map. The nearest mountains are the Copper Mountains located two miles to the West.

There is one building structure on a parcel adjacent to the north of the site and a residence on the east side across Lear Avenue. There is one residence located on a parcel adjacent to the west, separated from the site by a SCE 33kV transmission line. South of the property is similar to the proposed site and consists of flat, vacant land. There are very few other residential units scattered within the project vicinity. The Rural Living zoning is primarily designed for residential development on large parcels 2.5 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
Proposed Site	RL (Rural Living)	RL
North	RL	RL
South	RL	RL
East	RL	RL
West	RL	RL-5

Project Characteristics



The proposed PV project will generate equivalent power for approximately 3,000 average-size homes. The project will utilize approximately 56,000 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 traverses 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**.

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 120 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 7.37 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 a temporary service meter connected to a fire hydrant in the Twentynine Palms Water District Service area located within one mile of the project site. Water consumption for panel washing will be purchase 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 36,960 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 0.45 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 172,840 gallons (0.53 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 Lear Ave. 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 6 ½ months (26 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
--------------------------------	--	-----------------------	-----------

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

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

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

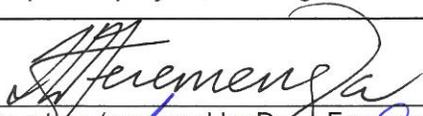
The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

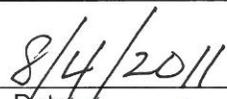
- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <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 Doug Feremenga, Planner)


 Date


 Signature: Matt Slowik, MURP, Senior Planner
 Land Use Services Department


 Date

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
--------	--------------------------------	--	-----------------------	-----------

I. AESTHETICS - Will the project

a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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) and relatively flat. The nearest mountains are the Copper Mountains located two 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 there are no state designated scenic highways in the vicinity of the project area. A scenic highway is officially designated as a state scenic highway when the local jurisdiction adopts a scenic corridor protection program, applies for the California Department of Transportation for scenic highway approval, and receives notification from Caltrans that the highway has been designated as an official scenic highway.

- 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 some of the current vegetation on the site; 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.



View North Along Lear Ave. From Hwy 62

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 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. All signs proposed by this project shall only be lit by steady, stationary, shielded light directed at the sign, by light inside the sign, by direct stationary neon lighting or in the case of an approved electronic message center sign alternating no more than once every five seconds.

[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
<p>II. AGRICULTURE AND FORESTRY RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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?</p>	<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 (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 (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 site has historically been under agricultural use, is currently fallowed agricultural land, and not designated as forest land.
 - 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, which allows the development of renewable energy generation facility with a Conditional Use Permit [Development Code Section 85.06].
-

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input 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 opacity in areas of where grading or vegetation removal occurs, within the staging

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

Over its lifetime, the proposed Project 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_x), Reactive Organic Gases (ROG) or Volatile Organic Compounds (VOC), Sulfur Oxides (SO_x), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}). The project construction activities also represent sources of vehicle re-entrained fugitive dust (which includes PM₁₀), 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 (PM₁₀), 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, 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-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 two-month 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 contribute to 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 not be substantial compared to the agricultural equipment that will otherwise be used in the area. 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

- 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 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]

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
IV. BIOLOGICAL RESOURCES - Will the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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] 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 tourneforti*)). (See Biological Survey Report 2011, Tables 2 and 3 for a complete list). No target sensitive plant species were detected during the focused surveys except for Utah milkweed (*Cynanhum utahense*) that has a low sensitivity ranking, CNPS List 4. Typically, there are no mitigation requirements for CNPS

List 4 plant species (PEC 2011). Utah milkweed was not listed in the CNDDDB database within 10 miles of the project site. All plants detected during the botanical survey effort are listed on Table 4 of the Biological Report (PEC 2011).

The proposed site is located within the range of the desert tortoise, burrowing owl and several other sensitive species as well as vegetation habitat types that could support these species. 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.

According to the Biological Resources Study (PEC 2011) no burrowing owls or diagnostic sign (burrows with associated feathers, pellets or whitewash) of the species were observed during the focused surveys of the project site. However, burrowing owls have been detected in the project vicinity and the site is considered potential burrowing owl habitat (CNDDDB 2010). Additionally, there are potential burrows (those produced by ground squirrels and suitable manmade structures) that could be utilized by the species within the project site. Precautionary measures are included below, in case burrowing owls are identified during construction. No other sensitive bird reptile or mammal species were detected during the survey effort.

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*)
- Western kingbird (*Tyrannus verticalis*)
- White crowned sparrow (*Zonotrichia leucophrys*)

Reptiles

- Desert iguana (*Dipsosaurus dorsalis*)
- Desert horned lizard (*Phrynosoma platyrhinos*)
- Gopher snake (*Pituophis catenifer*)
- Patch nosed snake (*Salvadora hexalepis*)
- Side-blotched lizard (*Uta stansburiana*)
- Sidewinder rattlesnake (*Crotalus cerastes*)
- 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 United States Fish and Wildlife Services (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 Impact.** The project will have a less than significant impact on the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. In addition, the project site lacks the refugia and cover typically sought by wildlife. In addition, the land uses (residential and OHV use) of the project site and areas adjacent to it also limit the value to wildlife of the habitat in the vicinity. Therefore no native wildlife has established movement patterns within or across the project site. While some native wildlife species, especially those particularly tolerant of human disturbances, may occasionally breed on the site, no native wildlife have established nursery or breeding colonies on the site. No naturally occurring native fish populations are present within the project site because the project site has no standing water or significant
-
-

hydrological drainages where water will be present for an extended period of time.

- 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.

Mitigation Measures

- BIO-1:** Protective Construction Fencing. The project developer shall install safety fencing around the perimeter of the work area to discourage entry from the construction area into the surrounding natural areas. All construction personnel shall be advised to stay within the fenced construction area. This fencing shall remain in place until the completion of construction activities. [Mitigation Measure **BIO-1** - Grading/Planning]
- BIO-2:** Avian Survey. An avian breeding season survey conducted in accordance with the Migratory Bird Treaty Act (MBTA), by a County-qualified biologist (ornithologist) is required within 30 days prior to grading or other land disturbing construction activities that involve removal of vegetation. A copy of the survey shall be submitted for review and approval obtained from County Planning, prior to grading. If active nests are located, no grading or heavy equipment activity shall take place within 300 feet of an active raptor nest or a special-status bird nest or within 100 feet of most common songbird nests. If no such breeding or nesting activities are detected construction activities may proceed and if such active nests are located, work activity shall be delayed, until the young birds have fledged and left the nest. [Mitigation Measure **BIO-2** - Grading/Planning]
- Bio-3:** Burrowing Owl Survey. The developer shall conduct a 30-day preconstruction survey for burrowing owls prior to any grading or ground disturbance. If burrowing owls are observed during pre-construction surveys, mitigation measures for the Burrowing Owl shall apply. [Mitigation Measure **BIO-3** - Grading/Planning]
- Bio-4:** Desert Tortoise Survey. The developer shall conduct a 30-day preconstruction survey for Desert Tortoise prior to any grading or ground disturbance. If desert tortoise or their burrows are observed during pre-construction surveys, mitigation measures for the desert Tortoise shall apply. [Mitigation Measure **BIO-4** - Grading/Planning]
-

- BIO-5:** 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:
- 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.
 - 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.
 - 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.
 - Intentional killing or collection of either plants or wildlife at construction sites is prohibited. Discharging of firearms is prohibited on construction sites.
 - 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-5** - Grading/Planning]

- BIO-6:** 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-6** - Grading/ Planning]

- BIO-7:** 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:
- 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/; USFWS, 2005).
 - Provide a trash abatement program with sealed trash containers on site to prevent unwanted tortoise predators such as ravens and coyotes.
 - 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-7** - Grading/ Planning]

BIO-8: Desert Tortoise Fence Maintenance. The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements as conditions of operation:

- a) Establish a desert tortoise fence maintenance program that provides for cleanup of litter from inside and outside the fence. Inspections shall document in writing any observations of tortoises (including carcasses) or their burrows and any repairs needed to maintain a fully functioning fence to maintain an effective barrier to tortoise movement into the project site.
- b) All fencing shall be fully inspected at least twice per year. During the first two (2) to three (3) years all inspections shall be conducted quarterly at a minimum, to identify and document breaches and problem areas such as wash-outs and vandalism.
- c) Global positioning system (GPS) coordinates and mileages from existing highway markers shall be recorded in order to pinpoint problem locations and build a database of problem locations that may require more frequent checking.

[Mitigation Measure **BIO-7** – Final Inspection/ Planning]

BIO-9: Burrowing Owl Habitat-loss Mitigation. If any Burrowing Owls are observed during pre-construction surveys, the developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements as compensation for the direct loss of active Burrowing Owl nesting:

- a) If any Burrowing Owls are observed during pre-construction surveys, the developer shall mitigate by acquiring and permanently protecting Burrowing Owl nesting,
 - b) If any Burrowing Owls are observed during pre-construction surveys, the preservation site, site management, and endowment shall be approved by the California Department of Fish and Game (CDFG).
 - c) If any Burrowing Owls are observed during pre-construction surveys, a Burrowing Owl Mitigation Monitoring Plan shall be submitted to the CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall
-

include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location and type of burrows) shall also be included in the plan. The plan shall also describe the proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site

- d) If any Burrowing Owls are observed during pre-construction surveys, all burrowing owls associated with occupied burrows, that will be directly impacted (temporarily or permanently) by the project, shall be relocated and the following measures shall be implemented to avoid a take of the burrowing owls:
- Occupied burrows shall not be disturbed during the nesting season of February 1 through August 31, unless a qualified biologist can verify through non-invasive methods that either the owls have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent flight.
 - Owls shall be relocated by a qualified biologist from any occupied burrows that will be impacted by project activities. Suitable habitat must be available adjacent to or near the disturbance site or artificial burrows will need to be provided nearby. Once the biologist has confirmed that owls have left the burrow, burrows should be excavated using hand tools and refilled to prevent reoccupation.
 - All relocation shall be approved by the CDFG. The permitted biologist shall monitor the relocated owls a minimum of three days per week for a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to the CDFG within 30 days following completion of the relocation and monitoring of the owls.
- e) If any Burrowing Owls are observed during pre-construction surveys, a Burrowing Owl Mitigation Monitoring Plan shall be submitted to the CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location and type of burrows) shall also be included in the plan. The plan shall also describe the proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site.

[Mitigation Measure **BIO-9** – Grading/ Planning]

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

a) **Less than Significant Impact.** The proposed Project is anticipated to have a less than significant impact to cultural resources. A California Historical Resources Information System records search, as well as a field survey conducted by LSA (2010) identified one isolate within the project area comprising two lithic flakes approximately five meters apart. One flake was whitish chalcedony that measured 3.8 cm x 3.2 cm and 1.4 cm thick. The second was a black/ gray cryptocrystalline silicate measuring 4.5 x 2.9 x 0.9 cm. The isolate has no buried component.

According to the Cultural Report (LSA 2010) the isolate does not appear eligible for listing in the California Register of Historic Resources (CRHR) under any criteria. The isolate is not associated with events that have made a significant contribution to the broad patterns of American and California history and cultural heritage (California Register Criterion 1). The lithic flakes are from the prehistoric time period when seasonal transhumance and expedient tool production and use characterized land use in the Mojave Desert, but this land-use history by itself does not constitute a significant contribution to the broad patterns of state or local history. LSA also determined that the resource is not associated with the lives of persons important to our past and that no one of significant regional or national stature can be linked to the resource (California Register Criterion 2). Lithic isolates are found throughout the vicinity and, as such, there is nothing to suggest that it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values (California Register Criterion 3). Due to the limited nature of the isolated find it does not have the potential to answer important research questions in history or prehistory (California Register Criterion 4). 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.

Mitigation Measures

CR-1: Cultural Resources. 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:

If archaeological, paleontological and/or historical resources are uncovered during ground disturbing activities, all work in that area shall cease immediately until written clearance by County Planning is provided indicating that satisfactory mitigation has been implemented. A qualified expert (e.g. archaeologist or paleontologist), as determined by County Planning in consultation with the County Museum shall be hired to record the find and recommend any further mitigation. The developer shall implement any such additional mitigation to the satisfaction of County Planning and the County Museum. If human remains are uncovered during ground disturbing activities, the San Bernardino County Coroner shall be contacted within 24 hours of the find. If the remains or cultural artifacts are determined to be of Native American origin, the local Native American representative shall also be notified. [Mitigation Measure **CR-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>
VI. GEOLOGY AND SOILS - Will the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 site is approximately 0.4 mile southwest of the southeast trending Hidalgo fault zone and about 2.1 miles north of the east-west trending Pinto Mountain fault zone. 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 measures that may be used for the proposed Project include proper fill composition and compaction; anchoring (or other means of for securing applicable structures); and use of appropriate pipeline materials, dimensions and flexible joints. Based on the incorporation of applicable measures into project design and construction, potential project impacts associated with strong seismic ground shaking 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 approximately 0.4 mile from the project area, 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 approximately two miles south 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 measures 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 measures 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 will be approximately eight feet. This allows the retention of some of the 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.
-

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

SUBSTANTIATION:

- a) **Less than Significant Impact.** The project 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 (CO₂) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N₂O) and methane (CH₄), as well as other GHG emissions related to vehicle cooling systems. Although construction emissions are a one-time event, GHG emissions such as CO₂ 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 CO₂e (MTCO₂e) 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 MTCO₂e/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.** 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 or architectural coatings. Emissions associated with architectural coatings will be reduced by complying with these rules and regulations, which include using precoated/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]

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

SUBSTANTIATION:

- a) **Less than Significant Impact.** 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. The nearest schools are 29 Palms Head start approximately four miles to the southeast, Copper Mountain Headstart approximately four miles to the southwest, and Twentynine Palms High school located approximately five miles to the southeast of the 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 closures of Lear Avenue, Cove View Road, and/or Mesa Drive 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.
-
-

- 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.
-

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
IX HYDROLOGY AND WATER QUALITY - Will the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that will result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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] 2010), 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 to the current runoff rates, drainage patterns, or quantity of runoff (AESI 2010).

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 westerly and southerly then turns northerly to an existing intermittent wash. This wash drains northerly to an existing dry lake bed between Los Olivos Avenue and Indian Cove Road (AESI 2010). 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 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 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map 06071C8175H indicates that the proposed Project area is within Zone X – areas determined to be outside the 0.2% annual chance floodplain (AESI 2010b). In addition, the parcel is not located in a special flood hazard zone. No indicators of hydrologic activity (topographical or geological), hydric soils, or hydrophytic vegetation were observed onsite. Therefore, no impacts from the proposed Project are anticipated.
 - 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.
-

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
X. LAND USE AND PLANNING - Will the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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). The RL 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 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>
---------------	---------------------------------------	---	------------------------------	------------------

XI. MINERAL RESOURCES - Will the project:

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

- a) **No Impact.** The 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>
XII. NOISE - Will the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 residencies, 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 public airport is the Hi Desert Airport, which is located approximately six miles to the southwest of the project area. Therefore, it will not expose people residing or working in the project area to excessive noise levels
- 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.
-

- 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>
XIII. POPULATION AND HOUSING - Will the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed Project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). 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 6 ½ months (26 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>
---------------	---------------------------------------	---	------------------------------	------------------

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 knock 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.

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

SUBSTANTIATION:

- a) **No Impact.** The proposed 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 Lear Avenue. 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.

Table XVI-1: Summary of Project Construction Traffic		
Activity	Total/Per Unit	Total /Construction Duration (26 Weeks [190 days])
Worker Commute	20 trips/day	Up to 3,800 Trips
Material Delivery and supplies	10 trips/day	Up to 1,900 Trips
Truck Deliveries	2-3 trips/day; up to 50 trips/month	Up to 570 Trips
33 Trips/Day		Up to 6,270 Total Trips

Impacts to local traffic on Lear Avenue 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 (3,900 vehicle trips per day [City of Twentynine Palms 2007/8 Traffic Study]) on Lear Avenue. Signage and flagman will be utilized if needed to decrease delays on Lear Avenue.

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.

Table XVI-2: Summary of Project Operation Traffic		
Activity	Total/Per Unit	Total /Year
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
		Up to 216 Total Trips

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 Lear Avenue. 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. Additionally, 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.

- 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 Lear Avenue, Cove View Road, or Mesa Drive 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.
-

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVI. UTILITIES AND SERVICE SYSTEMS - Will the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 2,400,000 (7.36 acre-feet) of water (IRM 2011).

In addition, approximately 36,960 gallons of water will be required to wash the panels up to four times per year for a total of 147,840 gallons [0.45 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 172,840 gallons (0.53 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 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
XVII. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which 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-9* 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, However, in the event that buried archaeological, historical or paleontological resources are uncovered during project

construction, the developer would comply with mitigation measure *CR-1*, thereby, reducing any potential cultural resources impacts to a less than significant level.

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.
-
-

GENERAL REFERENCES

- Arrow Engineering Services Inc. (AESI). 2010. Preliminary On-Site/Off-Site Hydrology Study for Solar Electric Solutions, LLC for a 12 MW Solar PV Electric Facility (SEPV8). (December).
- Arrow Engineering Services Inc. (AESI). 2010b. Preliminary Water Quality Management Plan (WQMP) for Compliance with State Water Resources Control Board General Construction Permit No. 2009-0009-DWQ WDID No. (TBD) for 12 MW Solar PV Electricity Generation Facility SEPV-08 (December).
- Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary Map.
- Integrated Resource Management (IRM). 2010. Water Supply Assessment for SEPV8, 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 CUP # P201100095, APN # 0612-091-03, ~04, ~05, ~21, and ~22, Sunfair 7.5 Minute Quadrangle, Section 16, Township 1N, Range 8E, 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)
- San Bernardino County Development Code (Available online at <http://www.co.san-bernardino.ca.us/landuseservices/DevCode/Default.asp>)
-

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

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. All signs proposed by this project shall only be lit by steady, stationary, shielded light directed at the sign, by light inside the sign, by direct stationary neon lighting or in the case of an approved electronic message center sign alternating no more than once every five seconds.
[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:

- 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.
- All lighting shall not exceed one-half (0.5) foot-candle at the property line.
- The Plan shall show the type, height, and location of all outdoor lights.
- All lighting shall be hooded, shielded, or directional in nature so that it does not extend beyond the property boundary and is directed downward.
- 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:

- Equipment/vehicles shall not be left idling for period in excess of five minutes
- 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.
- 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

BIO-1: Protective Construction Fencing. The project developer shall install safety fencing around the perimeter of the work area to discourage entry from the construction area into the surrounding natural areas. All construction personnel shall be advised to stay within the fenced construction area. This fencing shall remain in place until the completion of construction activities. [Mitigation Measure **BIO-1** - Grading/Planning]

BIO-2: Avian Survey. An avian breeding season survey conducted in accordance with the Migratory Bird Treaty Act (MBTA), by a County-qualified biologist (ornithologist) is required within 30

days prior to grading or other land disturbing construction activities that involve removal of vegetation. A copy of the survey shall be submitted for review and approval obtained from County Planning, prior to grading. If active nests are located, no grading or heavy equipment activity shall take place within 300 feet of an active raptor nest or a special-status bird nest or within 100 feet of most common songbird nests. If no such breeding or nesting activities are detected construction activities may proceed and if such active nests are located, work activity shall be delayed, until the young birds have fledged and left the nest. [Mitigation Measure **BIO-2** - Grading/Planning]

Bio-3: Burrowing Owl Survey. The developer shall conduct a 30-day preconstruction survey for burrowing owls prior to any grading or ground disturbance. If burrowing owls are observed during pre-construction surveys, mitigation measures for the Burrowing Owl shall apply. [Mitigation Measure **BIO-3** - Grading/Planning]

Bio-4: Desert Tortoise Survey. The developer shall conduct a 30-day preconstruction survey for Desert Tortoise prior to any grading or ground disturbance. If desert tortoise or their burrows are observed during pre-construction surveys, mitigation measures for the desert Tortoise shall apply. [Mitigation Measure **BIO-4** - Grading/Planning]

BIO-5: 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-5** - Grading/Planning]

BIO-6: 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-6** - Grading/ Planning]

BIO-7: 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" wide by 2" tall inch 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:
- b. (http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/; USFWS, 2005).
- c. Provide a trash abatement program with sealed trash containers on site to prevent unwanted tortoise predators such as ravens and coyotes.
- d. Provide biological construction monitoring during the installation of the tortoise fencing.
- e. 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.
- f. 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.
- g. 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.
- h. Submit a California Natural Diversity Database (CNDDB) 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.
- i. [Mitigation Measure **BIO-7** - Grading/ Planning]

BIO-8: Desert Tortoise Fence Maintenance. The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements as conditions of operation:

- a. Establish a desert tortoise fence maintenance program that provides for cleanup of litter from inside and outside the fence. Inspections shall document in writing any observations of tortoises (including carcasses) or their burrows and any repairs needed to maintain a fully functioning fence to maintain an effective barrier to tortoise movement into the project site.
- b. All fencing shall be fully inspected at least twice per year. During the first two (2) to three (3) years all inspections shall be conducted quarterly at a minimum, to identify and document breaches and problem areas such as wash-outs and vandalism.
- c. Global positioning system (GPS) coordinates and mileages from existing highway markers shall be recorded in order to pinpoint problem locations and build a database of problem locations that may require more frequent checking.
[Mitigation Measure **BIO-7** – Final Inspection/ Planning]

BIO-9 Burrowing Owl Habitat-loss Mitigation. If any Burrowing Owls are observed during pre-construction surveys, the developer shall prepare, submit for review and obtain approval of a

letter agreeing to adhere to the following requirements as compensation for the direct loss of active Burrowing Owl nesting:

- a. If any Burrowing Owls are observed during pre-construction surveys, the developer shall mitigate by acquiring and permanently protecting Burrowing Owl nesting,
 - b. If any Burrowing Owls are observed during pre-construction surveys, the preservation site, site management, and endowment shall be approved by the California Department of Fish and Game (CDFG).
 - c. If any Burrowing Owls are observed during pre-construction surveys, a Burrowing Owl Mitigation Monitoring Plan shall be submitted to the CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location and type of burrows) shall also be included in the plan. The plan shall also describe the proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site
 - d. If any Burrowing Owls are observed during pre-construction surveys, all burrowing owls associated with occupied burrows, that will be directly impacted (temporarily or permanently) by the project, shall be relocated and the following measures shall be implemented to avoid a take of the burrowing owls:
 - Occupied burrows shall not be disturbed during the nesting season of February 1 through August 31, unless a qualified biologist can verify through non-invasive methods that either the owls have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent flight.
 - Owls shall be relocated by a qualified biologist from any occupied burrows that will be impacted by project activities. Suitable habitat must be available adjacent to or near the disturbance site or artificial burrows will need to be provided nearby. Once the biologist has confirmed that owls have left the burrow, burrows should be excavated using hand tools and refilled to prevent reoccupation.
 - All relocation shall be approved by the CDFG. The permitted biologist shall monitor the relocated owls a minimum of three days per week for a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to the CDFG within 30 days following completion of the relocation and monitoring of the owls.
 - e. If any Burrowing Owls are observed during pre-construction surveys, a Burrowing Owl Mitigation Monitoring Plan shall be submitted to the CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location and type of burrows) shall also be included in the plan. The plan shall also describe the proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site.[Mitigation Measure **BIO-9** – Grading/ Planning]
-

CULTURAL RESOURCES

CR-1 Cultural Resources. 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:

If archaeological, paleontological and/or historical resources are uncovered during ground disturbing activities, all work in that area shall cease immediately until written clearance by County Planning is provided indicating that satisfactory mitigation has been implemented. A qualified expert (e.g. archaeologist or paleontologist), as determined by County Planning in consultation with the County Museum shall be hired to record the find and recommend any further mitigation. The developer shall implement any such additional mitigation to the satisfaction of County Planning and the County Museum. If human remains are uncovered during ground disturbing activities, the San Bernardino County Coroner shall be contacted within 24 hours of the find. If the remains or cultural artifacts are determined to be of Native American origin, the local Native American representative shall also be notified. [Mitigation Measure **CR-1** - Grading/Planning]

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 precoated/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.
 - 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]
-