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:	**0435-132-01 and 0435-083-39**
Applicant:	Lucerne Valley Desert View Ranch, LLC
Community:	Lucerne Valley/ 1st District
Location:	Bounded by Pioneer Road on the west, Candida Road on the east, Ocotillo Way on the South and Desert View Avenue on the north. A small 40-acre portion of the project extends north of Desert View to Wren Street.
Project No:	P201100489
Staff:	Chris Conner
Rep:	United Engineering Group
Proposal:	A Conditional Use Permit to establish a 20-Megawatt Solar Photovoltaic Electricity Generation Facility on 198 acres of a 358-acre site.

USGS Quad:	15 Mile Valley
T, R, Section:	T04N R02W Sec. 10 & 15
Lat/Long:	34°44'68" 117°06'96"
Community Plan:	N/A
LUZD:	RL-10 & RL-20
Overlays:	FS2

PROJECT CONTACT INFORMATION:

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

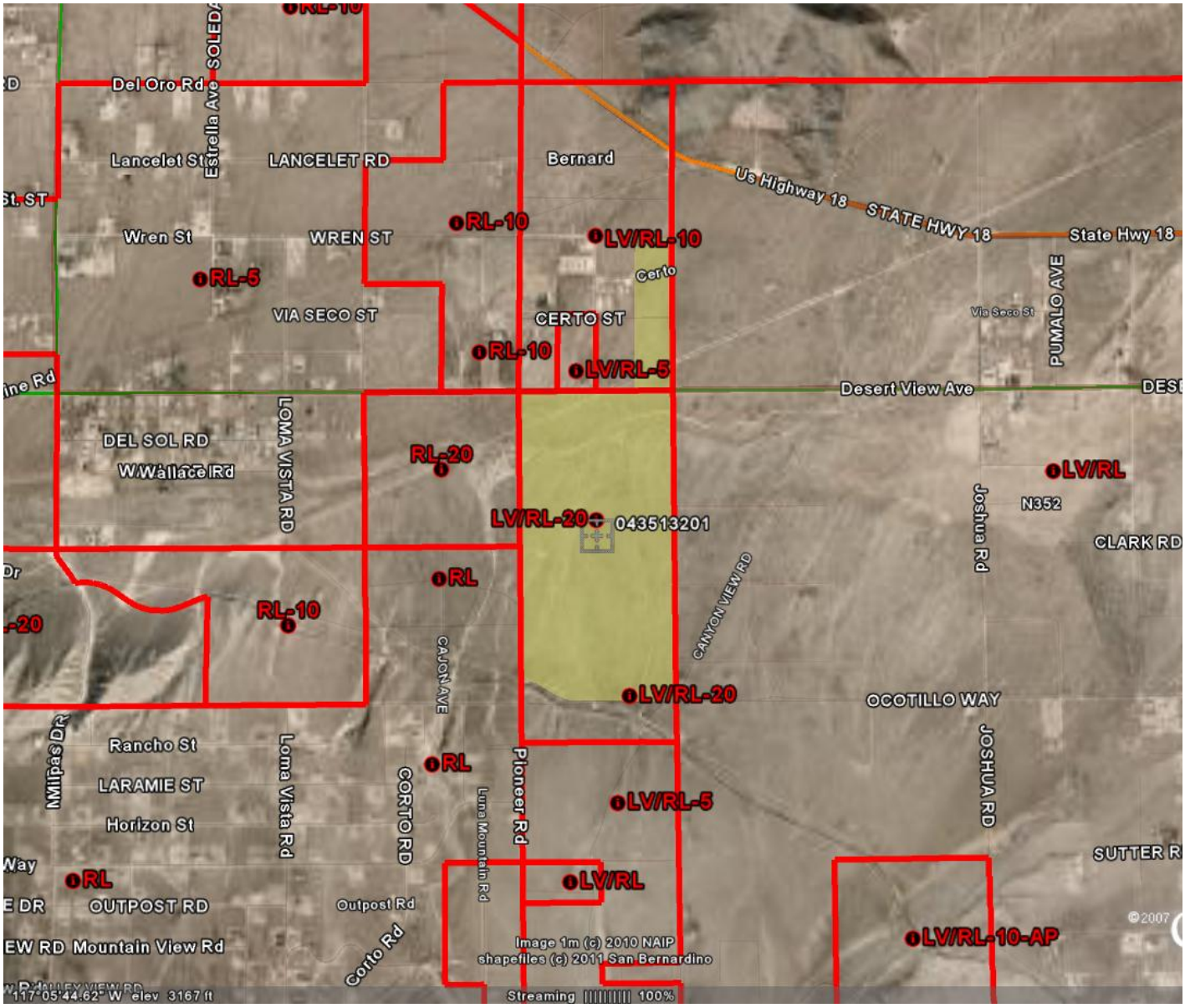
Contact person: Chris Conner, Senior Planner
Phone No: (909) 387-4425
E-mail: cconner@lusd.sbcounty.gov

Project Sponsor: Lucerne Valley Desert View Ranch, LLC – Silverado Power
44 Montgomery St. Suite 3065
San Francisco, CA 94104
(415) 692-7733

PROJECT DESCRIPTION:

Lucerne Valley Desert View Ranch (Silverado Power) proposes to construct and operate a 20-Megawatt (MW) photovoltaic (PV) solar energy generation facility ("Project") on a 358-acre site. The project site is situated in the east of of Section 15 and the southeast quarter of Section 10, Township 4 North, Range 2 West, San Bernardino Base and Meridian. The site lies approximatley ¼ mile south of Highway 18, east of the sphere of influence of the Town of Apple Valley, and is bound by Pioneer Road on the west, Candida Road on the east, Ocotillo Way on the South and Desert View Avenue on the north. A small 40-acre portion of the site extends north of Desert View to Wren Street. (See **Figure 1: Vicinity Map**).

FIGURE 1: Vicinity Map



Looking south on Canyon View Rd. from Wren Street

Looking northwest from intersection of Desert View Road and Canyon View Road

Looking southwest from intersection of Desert View Road and Canyon View Road

Looking northwest from intersection of Canyon View Road and Ocotillo Way

Looking northeast from intersection of Ocotillo Way and Pioneer Road

Looking southeast from intersection of Desert View Road and Pioneer Road

Project Setting

The site is generally rectangular and elongated in a north-south direction. The natural topography of the site is relatively level, descending gradually from south to north at a slope of approximately 3 percent. The highest point of the site is in the southwest corner with an elevation of 3,310 above mean sea level (MSL) and the lowest point is the northeast corner with an elevation of 3,050 MSL. The westerly boundary of the site is adjacent to the Town of Apple Valley sphere of influence boundary.

The site is currently vacant and the area surrounding the site is generally rural and undeveloped. There is one single family house adjacent to the project on the north side of Desert View Avenue. There is an existing residence to the west across Abronia Avenue and two residences located south of the project site across Indian Trail. There are very few other residential units scattered within the project vicinity. The Rural Living (RL-5) zoning is primarily designed for residential development on large parcels 5 acres in size or greater; however in the project vicinity, housing density is estimated at one house per forty acres.

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

Table 1: Existing Land Use and Land Use Zoning Districts

Location	Existing Land Use	Land Use Zoning District
Proposed Site	Vacant	RL-20 and RL-10
North	Vacant/Residence	RL-5 and RL-10
South	Vacant/Residence	RL-20
East	Vacant	RL
West	Vacant/Residence	RL, RL-20

Project Characteristics

The proposed PV project will generate equivalent power for approximately 5,000 average-size homes. The project will utilize PV modules mounted on fixed-tilt systems mounted in rows running east-west. The modules are wired together and connected to inverters, which convert Direct Current (DC) into electrical Alternating Current (AC). The power generated by the Project will be interconnected to Southern California Edison's (SCE) existing Transmission network, with the voltage transformation equipment and system safety equipment constructed on the site. The interconnection point is anticipated to take place at the southeast corner of the site on the tower directly adjacent to Canyon View Road. SCE will buy the energy produced by the project via a long-term Power Purchase Agreement. The PV panels are mounted on steel columns approximately five feet above grade and tilt to a maximum height of ten 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. This PV project will require a substation to be constructed on-site in order to tie into the existing Southern California Edison 115kV transmission line crossing the project site along Desert View Road. The substation area will be excavated for the transformer equipment and control building foundation, and oil containment area. Foundations for the substation will be reinforced concrete foundations.

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 approximately 9 months. Water will be applied via water trucks. It is estimated that approximately 40,000 gallons of water per acre will be used for disking, leveling and recompacting the upper 12 inches of soil. This activity will occur during the first four weeks of site construction. Dust control is estimated to use approximately 200 gallons per acre per day. The 198-acre site and the 9-month construction period will result in a construction water requirement of approximately 48.03 acre feet. A minimal amount of water will be required for construction worker needs (e.g.,

drinking water, sanitation facilities). Bottled water and portable sanitation units will be used during construction.

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

Since the proposed Project will not be directly connected to a public water system, water during the construction period will be obtained from the Apple Valley Ranchos Water Company. Based on the proposed Project size, approximately 18,000 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 0.22 acre-feet. An additional 163,350 gallons (0.50 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 235,350 gallons (0.72 AF) per year.

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 with a maximum height of eight feet and access provided through a rolling gate located at the driveway off of Indian Trail. The main purpose of the fence is to prevent unauthorized access to the site.

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

Construction Schedule:
The construction activities are expected to be completed in approximately 24 months. The on-site workforce will consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction activities will be conducted consistent with San Bernardino County regulations regarding hours of construction. The project is expected to create 150 new jobs at peak crew size during the construction phase.

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 Wildlife
- U.S. Department of Fish and Wildlife Service

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.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use/ Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

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

☐	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.
☒	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.
☐	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	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.
☐	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 Chris Conner, Senior Planner) — Date 10/28/13

Signature: David Prusch, Supervising Planner
Land Use Services Department — Date 10/28/13

	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?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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-10), (RL-20) and is relatively flat. The nearest mountains are the Granite Mountains located approximately one mile to the north. 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 at the perimeter of the site. None of the proposed equipment will obstruct any view sheds in the area. Therefore, the proposed Project will not have a substantial adverse effect on a scenic vista or adversely change the visual character of the area; impacts will be less than significant.

b) **No Impact.** The project will not substantially damage scenic resources or historic buildings within a state-designated scenic highway, as none exist onsite and the closest state designated scenic highway is more than 12 miles away.

c) **Less than Significant Impact.** The proposed Project will have a low profile (ten feet max height) and minimal lighting; therefore, it will not substantially degrade the existing visual character or quality of the site and its surrounding. The current visual character of the Project site is typical of rural living areas consisting of flat lands surrounded by sparse residential development, and typical vegetation communities such as creosote bush, burro-weed, desert dandelion, and mustard. Human disturbance is minimal within the site. There are occasional trash piles, no structures or evidence of livestock grazing on site. There are also occasional Off Highway Vehicle (OHV) trails in

the area. The general area is sparsely developed with single family residential with lot sizes ranging from 5 acres to 20 acres in size.

Due to the distance from Highway 18, 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 18 currently includes sporadic residential development throughout the landscape. 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.

No significant adverse impacts related to Aesthetics are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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:				
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?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☐ if project is located in the Important Farmlands Overlay):*

The proposed project is not located on Important Farmland, as mapped by the State of California. The site is located in an area that is considered rural desert land and is not located in an Agricultural Preserve area.

a) **Less than Significant.** This site is identified as Grazing Land on the Farmland Mapping and Monitoring Program map prepared by the Department of Conservation. Grazing Land is considered land for which the existing vegetation is suited for grazing of livestock. The County of San Bernardino General Plan contemplated the loss of designated farmland in its 2007 EIR. In it, the County found that the loss of designated farmland would occur, especially in the project area. Approval of the project would authorize removal of vegetation suitable for grazing, but it would not constitute a significant loss of an agricultural resource. The project site is not considered prime farmland, unique farmland or farmland of statewide importance. Therefore, the project's impact to designated farmland is considered less than significant

b) **No Impact.** The subject property is not designated or zoned for agricultural use and the proposed project does not conflict with any agricultural land use or Williamson Act land conservation contract.

c) **No Impact.** The subject property is not forest land or timberland, and the project does not propose re-zoning.

d) **No Impact.** The subject property is not 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 Rural Living, which allows the development of renewable energy generation facilities with a Conditional Use Permit [Development Code Section 85.06].

No significant adverse impacts related to Agriculture and Forestry Resources are identified or anticipated. Therefore, no mitigation measures are required.

	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?	☐	☐	☒	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
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)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

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

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

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

Over its lifetime, the proposed Project will not violate the regulations set forth by the MDAQMD *Rule*

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

b) **Less than Significant with Mitigation Incorporated.** The proposed Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation (LSA, Air Quality Analysis, 2013.) 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 (PM_{10}), 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 PM_{10}), 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 construction. The proposed Project will also include dust abatement measures that will limit the generation of pollutants, including particulate matter 10 microns or less in diameter (PM_{10}), consistent with Rule 403.2 *Fugitive Dust Control for the MDPA*. This includes using water trucks to minimize the production of visible dust emissions to 20 percent opacity in areas where grading or vegetation removal occurs, within the staging areas, and on any unpaved roads used during project construction. Additionally, water application will be used to increase moisture content and reduce dust generation during construction. In the context of the project design and construction features, the proposed Project construction-related air quality impacts will be negligible.

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) (LSA, Air Quality Analysis, 2013.) 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 (LSA, Air Quality Analysis, 2013.) The MDAQMD defines sensitive receptors as residences, schools, daycare centers, playgrounds and medical facilities (MDAQMD 2009). Residences in the project area will be exposed to short-term construction air quality impacts associated with construction exhaust emissions generated from construction

equipment, vegetation clearing, construction workers' commute, and construction material hauling during the construction period. There will be no air quality impacts from project operation: electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively contribute to air quality. The County's general conditions and standards as well as project-specific design and construction features incorporated into the proposed Project such as dust suppression techniques per MDAQMD's Rule 403 will reduce any potential impacts from the project. No significant adverse impacts are identified or anticipated and no additional mitigation measures are required.

e) **No Impact.** The proposed Project will not create objectionable odors that will affect a substantial number of people. Electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively affect air quality or produce objectionable odors. Potential odor generation associated with the proposed Project will be limited to construction sources such as diesel exhaust and dust but these will be temporary and not be substantial (LSA, Air Quality Analysis, 2013.) 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.

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

The project will be subject to air quality regulations implemented by the Mojave Desert Air Quality Management District (MDAQMD), notably the nuisance and dust control regulations of MDAQMD Rules 402 and 403. In addition to these requirements, the following mitigation measures are recommended to reduce potential impacts of the project:

Mitigation Measures:

AQ-1 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.

[Measure AQ-1 – Prior to Grading/Land Disturbance]

	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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
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?	☐	☐	☒	☐

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 habitat assessment for the Mohave Ground Squirrel was prepared by Ryan Young and RCA Associates on October 10, 2011, a focused Desert Tortoise Survey was prepared by RCA Associates on October 7, 2011, and a habitat assessment and Burrowing Owl Burrow Survey was prepared by RCA Associates on October 12, 2012.

a) **Less than Significant with Mitigation Incorporated**. Based on the above referenced surveys prepared by RCA Associates and Ryan Young, the site supports a relatively undisturbed creosote bush community. Co-dominants include burrobrush and Joshua trees. A wide variety of other

perennials were observed and some of the more common species included cholla, cheesebush, paperbag plant, Indian ricegrass, buckwheat, spiny hop-sage and winterfat. Dominant annuals included schisms, yellow buck wheat, vinegar weed and desert trumpet.

Wildlife species were identified during the field investigations conducted on September 21 through 25, 2011 and October 8, 9 and 10, 2012. Birds identified included sage sparrows, morning doves, ravens and western kingbirds. A solitary northern harrier, which is a California Species of special concern, was also observed on the property on two separate occasions. A few side-blotched lizards and western whiptail lizards were the only live reptiles observed during the field investigations. Marriams's Kangaroo rats may also be present on the site given the presence of numerous small mammal burrows observed throughout the property.

Burrowing Owl

The site supports suitable habitat for burrowing owl based on the results of the Phase I surveys and three occupiable burrows were identified during the Phase II surveys. The nearest documented Owl populations are located approximately 5.5 miles west of the site and 7.5 miles west of the site. Due to the lack of nearby populations and presence of only three occupiable burrows onsite, additional surveys were not recommended or conducted (Habitat Assessment & Burrowing Owl Burrow Survey, RCA Associates, October, 2012.)

The loss of potential owl habitat is not significant because 190 acres of the 358 acre project site will remain undeveloped. However, due to the migratory nature of the species, there is still potential for the owl to move onsite prior to construction potentially resulting in impacts to the species. The implementation of Mitigation Measures requiring pre-construction surveys and passive relocation (BIO-2), a Worker Environmental Awareness Program (BIO-6), and presence of a biological monitor during construction (BIO-1) will reduce potential impacts to a level below significant.

Desert Tortoise

The desert is the largest reptile in the arid southwest United States, and it historically occupied a range that included a variety of desert communities in southeastern California. Today, populations are largely fragmented and studies indicate a steady and dramatic decline over most of its former range. A highly contagious respiratory disease has infected tortoise populations over the last 20+ years, primarily in the western Mojave Desert region, which has had a very detrimental impact on population levels. Given the continued habitat loss and the rapid decline in numbers of tortoises brought about by the disease, the U.S. Fish and Wildlife Service exercised its emergency authority and determined tortoise populations north and west of the Colorado River to be an endangered species under the Endangered Species Act of 1973. On April 2, 1990, the U.S. Fish and Wildlife Service (USFWS) officially listed the desert tortoise as a threatened species under the Endangered Species Act of 1973.

During the protocol surveys conducted on the site, three partial tortoise carcasses were observed. Two of the carcasses were located in the northern portion of the site and one carcass was located near the southeast corner. In addition to the carcasses, three inactive/historic tortoise burrows were identified during the field investigations. Two of the burrows were observed near the boundary of the property and one burrow was located on the southeast portion of the site. Given the presence of documents tortoise population a few miles northeast of the site and the presence of tortoise sign within the boundaries of the property, tortoise could potentially occur on the site in the near future. However, no live tortoises were identified during the protocol surveys; consequently, the population levels may be very low in the area. The protocol survey results outlined in the RCA Associates are valid for one year as per CDFW and USFWS requirements, and an additional survey may be required if the 12-month time limit is exceeded before site clearing activities are commenced. However, regardless of results of the tortoise survey, desert tortoise cannot be taken under State and federal law. The survey report and any mitigation included do not constitute authorization for incidental take of the desert tortoise. Given the presence of tortoise sign on the property, USFWS

and CDFG must be contacted to discuss the results of the protocol survey.

Construction of the proposed project will have a direct impact on habitat that has been inhabited by tortoises in the past; however, the proposed project is not expected to impact any existing populations of live tortoises based on the results of the September, 2011 protocol surveys. The absence of any live tortoises or active burrows indicate that population levels on the site, as well as in the immediate area, have been significantly reduced over the last few decades due to a variety of activities including human impacts, habitat loss, and the presence of the wide spread respiratory disease.

The potential for project-related impacts to Mojave desert tortoises would be limited to individuals that either occupied the site but went undetected during protocol surveys or that were not present on-site during the surveys but colonized the area subsequently. Although unlikely, these impacts would be potentially significant, absent mitigation, due to the very high level of statutory protection afforded this species. These impacts would be reduced to a less than significant level through Mitigation Measures requiring the implementation of a Worker Environmental Awareness Program (BIO-2), presence of a biological monitor during construction (BIO-3), installation of tortoise exclusion fencing around disturbance zones (BIO-7), and pre-construction surveys for this species (BIO-8).

Mohave Ground Squirrel

The Mohave ground squirrel has been listed by the CDFW as a threatened species, thereby giving the animal protection under the California Endangered Species Act. The species is known to occur in the western Mojave Desert in portions of four counties, including Inyo, Kern, San Bernardino, and Los Angeles. The distribution of the Mohave ground squirrel is quite limited as compared to the distribution of other ground squirrel species. The Mohave ground squirrel is found in several habitat types throughout the Mojave Desert including creosote bush scrub, salt scrub, and Joshua tree woodland communities. Degradation and destruction of the species' habitat and isolation of individual populations appear to the primary factors in the species' decline.

Based on the habitat assessment prepared by Ryan Young and RCA Associates, it was determined that the site supports suitable habitat (creosote bush community) for the Mohave ground squirrel. This conclusion was based on the following criteria:

1. Proximity of historic and recent records
2. Creosote bush community that is frequently associated with the species.
3. Connectivity to undisturbed habitat in the surrounding area.
4. Numerous small mammal burrows present throughout the site.
5. Property is within the known distribution of the Mohave ground squirrel.

There is no designated critical habitat for the Mohave ground Squirrel in the immediate area nor was there any proposed critical habitat in the area. Regardless of the results of the habitat assessment, Mohave ground squirrels cannot be taken under State law.

Construction of the project will have a direct impact on the potential Mohave ground squirrel habitat. The site does support suitable habitat for the species and populations of the species may be present on the site based on past observations of the species in the immediate area. Implementation of Mitigation Measure BIO-5 which requires the applicant to apply for an Incidental Take Permit (2081 Permit) from CDFW or conduct a live-trapping survey will reduce impacts to a level below significant.

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 CDFW or USFWS.

c) **No Impact**. No waters or wetlands that fall under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Regional Water Quality Control Board (RWQCB), and/or CDFW are

found on the proposed Project area (Preliminary Drainage Study, United Engineering Group, 2011). No indicators of hydrologic activity (topographical or geological), hydric soils, or hydrophytic vegetation were observed onsite. In addition, no blue-line streams are found on the Sunfair U.S. Geological Survey (USGS) 7.5-minute quadrangle in the vicinity of the project area.

d) **Less than Significant with Migitation Incorporated**. The project will not have an effect on migratory fish, but may have impacts on the Burrowing Owl. See section A above.

e) **Less than Significant with Mitigation Incorporated.** The County Development Code Section 88.01.060 (Desert Native Plant Protection) provides regulations 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 proper use of desert resources. According to the Biological Report prepared by RCA Associates the site supports creosote bush community, Mojave yuccas and Joshua trees. The Joshua trees and the Mojave yuccas are listed in 88.01.060 (c) of the County Development Code as protected trees. According to the field survey prepared by RCA Associates there is a total of 662 Joshua trees and Mojave yuccas in the northern portion of the project and approximately 1,467 in the southern portion of the site.

Prior to any land disturbance the developer shall prepare and submit a native tree removal plan indicating exactly which trees or plants are proposed to be removed or relocated. The plan shall be prepared by a Desert Native Plant Expert in accordance with the County's Plant Protection and Management Ordinance. Implementation of these Mitigation Measures (BIO-10 – BIO-12) will reduce impacts to a level below significant.

f) **Less than Significant.** 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.

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

Mitigation Measures

BIO-1 Biological Monitor. Prior to issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the biological monitor subject to the approval of the County of San Bernardino. The biological monitor shall be present at all times during vegetation clearing or ground disturbance, and shall ensure that impacts to biological resources are avoided or minimized to the fullest extent possible. When construction activities have progressed to the point where biological resources are no longer present, as determined by the biological monitor, biological monitoring in the area may be reduced or discontinued with approval from the County of San Bernardino. The biological monitor shall have the authority to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. [Mitigation Measure BIO-1 – Prior to Grading/Land Disturbance]

BIO-2 Pre-Construction Burrowing Owl Surveys and Passive Relocation. Within 14 days prior to ground disturbance, the Applicant shall retain a qualified biologist to conduct burrowing owl surveys within the area to be disturbed. The survey shall be performed by walking parallel transects spaced no more than 20 meters apart, and shall be focused on detecting burrows that are occupied, or are suitable for occupation, by the burrowing owl. The results of the surveys, including graphics showing the locations of any active burrows detected and any avoidance measures required, shall be submitted to the County

of San Bernardino and CDFG within 14 days following completion of the surveys. If active burrows are detected, the following take avoidance measures shall be implemented:

- If burrowing owls are observed using burrows on-site during the non-breeding season (September through January, unless determined otherwise by a qualified biologist based on field observations in the region), occupied burrows shall be left undisturbed, and no construction activity shall take place within 300 feet of the burrow where feasible (see below).
- If avoiding disturbance of owls and owl burrows on-site is infeasible, owls shall be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with California Burrowing Owl Consortium (1993) protocols. Specifically, exclusion devices, utilizing one-way doors, shall be installed in the entrance of all active burrows. The devices shall be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows shall then be excavated by hand and/or mechanically refilled to prevent reoccupation. Exclusion shall continue until the owls have been successfully excluded from the disturbance area, as determined by a qualified biologist.
- Any active burrowing owl burrows detected on-site during the breeding season (February through August, unless determined otherwise by a qualified biologist based on field observations in the region), shall not be disturbed. Construction activities shall not be conducted within 300 feet of an active on-site burrow at this season.
  [Mitigation Measure BIO-2 – Prior to Grading/Land Disturbance]

BIO-3 Mojave Desert Tortoise Exclusion Fencing. During the months of April, May, September, or October prior to initiation of construction activities, the Applicant will retain a qualified biologist to conduct Mojave desert tortoise surveys in accordance with the most recent USFWS survey protocol for this species. If Mojave desert tortoises or their recent sign are detected, the Applicant shall not initiate construction, and shall instead contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise.

If survey results are negative, the Applicant shall erect a tortoise exclusion fence surrounding all portions of the site that are proposed for solar development or other ground disturbance. The exclusion fence shall be installed in accordance with the specifications set forth in Chapter 8 of the USFWS' Desert Tortoise Field Manual (USFWS 2009), and installation of the fence shall be overseen by a biologist familiar with the installation of tortoise exclusion fencing. Following installation of the tortoise exclusion fence, the Applicant shall retain a qualified biologist to conduct a second, full-coverage pedestrian survey of all areas encompassed by the exclusion fence. If Mojave desert tortoises or their recent sign are detected, the Applicant shall immediately remove portions of the exclusion fence to prevent entrapment of tortoises, and shall contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise. If no tortoises or their sign are detected during the second survey, construction activities may commence.

All fence inventories shall be inspected at least twice per year. However, 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, vandalism, and accident. 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. Following two to three years of initial inspection, subsequent inspections shall focus on known problem areas which shall be inspected more frequently than twice per year. In addition to semi-annual inspections, problem areas prone to wash-outs shall be inspected following precipitation that produces potentially fence-damaging water flow. A database of problem areas shall be established whereby checking fences in such areas can be done efficiently. [Mitigation Measure BIO-3 – Prior to Grading/Land Disturbance]

BIO-4 Pre-Construction Mojave Desert Tortoise Surveys and Avoidance. Within 14 days prior to construction-related ground clearing and/or grading, the Applicant shall retain a qualified biologist to conduct surveys for signs of occupancy by the Mojave desert tortoise. Surveys shall cover the entire area proposed for disturbance, shall be conducted by walking parallel transects spaced no more than 10 meters apart, and shall focus on detecting any live tortoises or their sign, including carcasses, burrows, palates, tracks, and scat. Should any sign indicating the presence of Mojave desert tortoise be detected, the Applicant shall not proceed with ground clearing and/or grading activities in the area of the find, and shall instead contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise.

The results of the pre-construction surveys, including graphics showing the locations of any tortoise sign detected, and documentation of any avoidance measures taken, shall be submitted to the USFWS, CDFG, and the County of San Bernardino within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable federal and state laws pertaining to the protection of Mojave desert tortoise. [Mitigation Measure BIO-4 – Prior to Grading/Land Disturbance]

BIO-5 Mohave Ground Squirrel. Prior to the issuance of Grading Permits or any land disturbing activities on site the applicant will need to apply for an Incidental Take Permit (2081 Permit) from the California Department of Fish and Wildlife (CDFW) and provide suitable mitigation fees for the purchase of compensatory mitigation. However, In lieu of applying for the Incidental Take Permit, the applicant may conduct a live-trapping survey to definitively determine the presence or absence of the species on site. The live trapping survey must be conducted during the spring months (March – June) and if the species is not detected during the trapping period, mitigation may not be required by CDFW. However, if the species is detected, the Take Permit and appropriate mitigation will be required. [Mitigation Measure BIO-5 – Prior to Grading/Land Disturbance]

BIO-6 Worker Environmental Awareness Program. Prior to any construction activities on the project site, the Applicant will implement a Worker Environmental Awareness Program (WEAP) to educate on-site workers about sensitive environmental issues associated with the Project. The program will be administered to all on-site personnel, including the Applicant's personnel, contractors, and all subcontractors, on the first day of work prior to the employee's commencing work on the site. The WEAP will place special emphasis on the protected species that have potential to occur within the site, including the Mojave desert tortoise, Burrowing owl, Mohave ground squirrel, among other plant and wildlife species. The program will include the following elements:

- A presentation, developed by or in consultation with a qualified biologist, discussing the sensitive biological resources with potential to occur on-site, and explaining the reasons for protecting these resources and penalties for non-compliance;
- Brochures or booklets, containing written descriptions and photographs of protected species as well as a list of site rules pertaining to biological resources, to be provided to all WEAP participants;
- Contact information for the project biological monitor, and instructions to contact the monitor with any questions regarding the WEAP presentation or booklets;
- An acknowledgement form, to be signed by each worker indicating that they received WEAP training and will abide by the site rules protecting biological resources; and,
- Conspicuous stickers, identifying the project and signifying WEAP completion, to be distributed immediately following WEAP training and required on personnel hard hats.
- The project Applicant will be responsible for ensuring that all on-site personnel, throughout the duration of project construction, receive WEAP training. A training log, to be signed by all on-site personnel immediately following WEAP training, will be maintained on the project site during construction to document compliance with this measure.
  [Mitigation Measure BIO-6 – Prior to Grading/Land Disturbance]

BIO-7 Nesting Bird Season. All clearing and grubbing of the project site should take place between August 15 and February 15. Winter site clearing shall insure that nesting birds are not present and impacted. In accordance with the Migratory Bird Treaty Act (MBTA), if vegetation removal shall occur during the bird-nesting season, generally February 15 to August 15, a qualified biologist ornithologist will examine the site to avoid impacts to nesting birds. shall conduct preconstruction bird nesting surveys within 200 feet (or up to 300 feet depending on topography or other factors and 500 feet for raptors) to avoid impacts to nesting birds. If active bird nest(s) are detected during the pre-construction nesting surveys, the qualified ornithologist will establish an adequate no disturbance buffer around the active nest(s) shall be established as determined by a qualified biologist until the nest(s) have fledged to ensure the nesting birds are not disturbed until the young birds have fledged. [Mitigation Measure BIO-7 – Prior to Grading/Land Disturbance]

BIO-8 Permanent Perimeter Fencing. Prior to installation of the project's security fence, a pre-construction survey for desert tortoises within and adjacent to (within 500 feet) the project site should be performed. The survey shall be initiated within one (1) week of the fence installation, and concluding no more than 48 hours prior to installation. The survey should be conducted using pedestrian transects spaced at no more than 10 meters. A second pre-construction survey should be conducted within 24 hours of the fence installation, and be restricted to the fence alignment and its immediate area. Should any tortoises be discovered within the proposed development area or immediately adjacent to the proposed fenced area, a contingency plan (as described under the *County General Conditions, Project Design and Construction Features* section) shall be implemented. [Mitigation Measure BIO-8 – Prior to Grading/Land Disturbance]

BIO-9 Biological Monitoring During Construction of Security Fence. During installation of the project's security fence which shall include tortoise exclusion fencing, a biologist experienced with desert ecology and desert tortoise biology shall be present to ensure that disturbance to the habitat on and near the project site is kept to a minimum, and to prevent take of tortoises. The biological monitor shall have the authority to stop construction activities if desert tortoises or their burrows are threatened, or if rules protecting tortoises and their habitat (i.e., adherence to speed limits, picking up trash, etc.) are not being followed by construction personnel. [Mitigation Measure BIO-9 – Prior to Grading/Land Disturbance]

BIO-10 Native Tree Removal and Relocation Plan. Prior to any land disturbance the developer shall prepare and submit a native tree removal plan indicating exactly which trees or plants are proposed to be removed or relocated. The plan shall be prepared by a Desert Native Plant Expert in accordance with the County's Plant Protection and Management Ordinance, and shall be approved prior to any land disturbance and/or removal of any trees or plants. Every effort shall be made to minimize vegetation removal. Native vegetation shall be flagged for protection. A project revegetation plan would be prepared for areas of native habitat temporarily impacted. [Mitigation Measure BIO-10 – Prior to Grading/Land Disturbance]

BIO-11 Transplanting and Relocation of Native Trees and Plants. All transplanting approved by the County of San Bernardino must be initiated and completed under the supervision of a Desert Native Plant Expert. Approval of such transplant must take into consideration the time of year, the plant's original and transplanted physical orientation, prevailing wind direction, soil type of the original and transplanted locations, and other related attributes which may affect the successful transplantation of the Joshua Tree(s) and Yuccas in question as determined by the Desert Native Plant Expert. Joshua Trees and Yuccas that are proposed to be removed shall be transplanted or stockpiled for future transplanting wherever possible. In the instance of stockpiling and/or transplanting the permittee has submitted and has had the approval of a Joshua Tree and Yucca maintenance plan prepared by a Desert Native Plant Expert. This plan shall include a schedule for maintenance and a statement by the Desert Native Plant Expert that this maintenance plan and schedule will be implemented under his/her supervision. The

schedule shall include the requirement that a maintenance report is required at the end of the project or at six (6) month intervals, evidence to the satisfaction of the Planning Section that the Desert Native Plant Expert has supervised the scheduled maintenance to the extent that all transplanted and stockpiled plants have been maintained in such a manner to insure the highest practicable survival rate. In the event that this report is not satisfactory, a tree and plant replacement plan and implementation schedule prepared by a Desert Native Plant Expert may be required. [Mitigation Measure BIO-11 – Prior to Grading/Land Disturbance]

BIO-12 Cactus Salvage Plan. Prior to issuance of a grading permit, the Applicant shall submit a Cactus Salvage Plan to the County of San Bernardino and the CDFG for approval. The Cactus Salvage Plan shall contain the following elements:

- A spatial inventory of all native cacti within the project site, including species and locations;
- A quantitative assessment of the numbers of each cactus species to be removed by the project; and,
- Proposed measures to retain as many cacti as is practical on the project site, and a spatial and quantitative description indicating the species and locations of cacti to be preserved.

[Mitigation Measure BIO-12 – Prior to Grading/Land Disturbance]

	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?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

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

A Cultural Resources Assessment was prepared by BCR Consulting for this project on March 20, 2012.

a) **Less than Significant Impact**. BCR Consulting conducted a cultural resources assessment on the project in the Lucerne Valley area. The records search and field survey did not identify any cultural resources, including prehistoric archaeological sites or historic buildings, within the project boundaries. Furthermore, research results combined with surface conditions have failed to indicate sensitivity for buried cultural resources. Based on these results, BCR Consulting recommends that no additional cultural resources work or monitoring is necessary during proposed project activities associated with the Project. Therefore, no significant impacts related to archaeological or historical resources is anticipated and no further investigations are recommended for the proposed project unless:

The Project changes to include areas outside the current project boundaries;

Cultural materials are encountered during project activities.

Although the current study has not indicated sensitivity for cultural resources within the project boundaries, ground disturbing activities always have the potential to reveal buried deposits not observed on the surface during previous archaeological surveys. 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. The proposed Project is anticipated to have a less than significant impact to cultural resources. Accordingly, no mitigation under CEQA or avoidance of the isolate will be required.

b) **Less than Significant Impact.** The proposed Project will not **c**ause 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.

No significant adverse impacts related to Cultural Resources are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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.	☐	☐	☒	☐
	ii. Strong seismic ground shaking?	☐	☐	☒	☐
	iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv. Landslides?	☐	☐	☐	☒
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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

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

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

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

ii) Less than Significant Impact. The project site is within a seismically active region and is potentially subject to strong ground acceleration from earthquake events along major regional faults. The San Andreas Fault as a whole is capable of generating significant seismic activity but it has not been particularly active along the southern segment. The North Frontal Fault zone is located approximately 1.5 miles southeast of the project. The project design would 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 would be less than significant.

iii) Less than Significant Impact. Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. 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 form the CBC and Greenbook standards as noted above in Section VI.a.ii. Based on the incorporation of applicable standards into project design and construction, potential project impacts associated with seismic-related liquefaction and settlement will be less than significant.

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

b) **Less than Significant Impact.** No substantial grading or vegetation removal will occur for the installation of the proposed Project. It is expected that vegetation will be cleared for the footprints of the individual tracker units, but those will be situated above the ground at a maximum height of ten 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 is not anticipated to extend beyond 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.

No significant adverse impacts related to Geology and Soils are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☐	☒	☐
b)	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

SUBSTANTIATION:

a) **Less than Significant Impact.** The County's Greenhouse Gas Emissions Reduction Plan (GHG Plan) was adopted on December 6, 2011 and became effective on January 6, 2012. The GHG Plan establishes a GHG emissions reduction target for the year 2020 that is 15 percent below 2007 emissions. The Plan is consistent with AB 32 and sets the County on a path to achieve more substantial long-term reduction in the post-2020 period. Achieving this level of emissions will ensure that the contribution to greenhouse gas emissions from activities covered by the GHG Plan will not be cumulatively considerable.

In 2007, the California State Legislature adopted Senate Bill 97 (SB 97) requiring that the CEQA Guidelines be amended to include provisions addressing the effects and mitigation of GHG emissions. New CEQA Guidelines have been adopted that require: inclusion of a GHG analyses in CEQA documents; quantification of GHG emissions; a determination of significance for GHG emissions; and, adoption of feasible mitigation to address significant impacts. The CEQA Guidelines [Cal. Code of Regulations Section 15083.5 (b)] also provide that the environmental analysis of specific projects may be tiered from a programmatic GHG plan that substantially lessens the cumulative effect of GHG emissions. If a public agency adopts such a programmatic GHG Plan, the environmental review of subsequent projects may be streamlined. A project's incremental contribution of GHG emissions will not be considered cumulatively significant if the project is consistent with the adopted GHG plan.

Implementation of the County's GHG Plan is achieved through the Development Review Process by applying appropriate reduction requirements to projects, which reduce GHG emissions. All new development is required to quantify the project's GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons of carbon dioxide equivalent (MTCO2e) per year is used to identify and mitigate project emissions. For projects exceeding 3,000 MTCO2e per year of GHG emissions, the developer may use the GHG Plan Screening Tables as a tool to assist with calculating GHG reduction measures and the determination of a significance finding. Projects that garner 100 or more points in the Screening Tables do not require quantification of project-specific GHG emissions. The point system was devised to ensure project compliance with the reduction measures in the GHG Plan such that the GHG emissions from new development, when considered together with those from existing development, will allow the County to meet its 2020 target and support longer-term reductions in GHG emissions beyond 2020. Consistent with the CEQA Guidelines, such projects are consistent with the Plan and therefore are determined to have a less than significant individual and cumulative

impact for GHG emissions.

Greenhouse gas emissions resulting from the construction and operation of the proposed Project were quantified and reported in a technical memorandum (LSA, Air Quality Analysis, 2013.) Results of the analysis show that construction of the project will result in the generation of approximately 6,000 lbs/day of CO2E over the anticipated 9 months of construction. Table VII-1 below details the estimated emissions. However, the project is expected to reduce regional CO2E emission by 165,000 metric tons annually resulting in the project fully offsetting its construction emissions in less than 1 week of operation. These emissions are far below San Bernardino County's significance threshold of 3,000 MTCO2e per year and are therefore are consistent with the County of San Bernardino's September 2011 Greenhouse Gas Emissions Reduction Plan and would present a less than significant impact for GHG emission.

Table VII-1

			SCAQMD Off-Road EF[1]								
			Diesel Emission Factors (lbs/hour)								
Emissions Source	# of units	Hours per day	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO_2	CH_4	
Phase 1											
Scraper	2	8	1.0395	0.2783	2.4118	0.0027	0.1005	0.0925	262.49	0.0251	
Backhoe	2	8	0.0934	0.0192	0.1399	0.0002	0.0077	0.0071	16.698	0.0017	
Phase 2											
Pile Drivers	3	8	0.3765	0.0872	0.7938	0.0013	0.033	0.0304	122.66	0.0079	
Backhoe	2	8	0.0934	0.0192	0.1399	0.0002	0.0077	0.0071	16.698	0.0017	
Lifts	2	8	0.1925	0.0529	0.3059	0.0004	0.0202	0.0186	34.722	0.0048	
Crane	1	8	0.4737	0.1348	1.1934	0.0014	0.0508	0.0468	128.64	0.0122	
	# of units	Miles per day	EMFAC2011: 2013 Factors								Speed (mph)
			Diesel Emission Factors (gms/mi)								
Superintendent Truck	1	10	0.5594	0.0989	0.5686	0.009	0.0819	0.0754	377.48	0.06	15
Grade Checker Truck	1	10	0.5594	0.0989	0.5686	0.009	0.0819	0.0754	377.48	0.06	15
Delivery Trucks	2	20	0.5594	0.0989	0.5686	0.009	0.0819	0.0754	377.48	0.06	15
Water Truck	2	56	0.5594	0.0989	0.5686	0.009	0.0819	0.0754	377.48	0.06	15
			Gasoline Emission Factors (gms/mi)								
Worker Commute	45	40	1.2915	0.0346	0.1255	0.003	0.0015	0.0014	287.01	0.018	50

[1] From SCAQMD web site: http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html, downloaded 5/2/2013.
OffRoad Diesel $PM_{2.5}$ calculated assuming the $PM_{2.5}$ fraction of Diesel PM_{10} is 0.920

[2] SO_X and CH_4 emissions factors from EMFAC2007 as EMFAC2011 does not include these two.

CH_4 = methane
CO = carbon monoxide
CO_2 = carbon dioxide
gms/mi = grams per mile
lbs/hour = pounds per hour
mph = miles per hour
NO_X = nitrogen oxides
$PM_{2.5}$= particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

Moreover, the construction of this solar facility will generate "green" electric power generation that would otherwise be produced with fossil fuels with much higher GHG emissions. The proposed Project thus would result in a net environmental benefit regarding GHG emissions.

b) **No Impact.** The proposed Project would produce solar electricity and is consistent with the County of San Bernardino Greenhouse Gas Emissions Reduction Plan. (See discussion above in Item a).

No significant adverse impacts related to Greenhouse Gas Emission are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☒	☐

SUBSTANTIATION:

a) **Less than Significant Impact.** Implementation of the proposed Project will not entail the routine transport, use or disposal of hazardous materials, with the potential exception of short-term construction-related substances such as fuels, lubricants, adhesives, solvents and asphalt wastes. The potential risk associated with the accidental discharge during use and storage of such

construction-related hazardous materials during project construction is considered low because the handling of any such materials will be addressed through the implementation of Best Management Practices (BMPs) pursuant to the intent of the National Pollutant Discharge Elimination System (NPDES) General Construction Permit.

b) **Less than Significant Impact.** The proposed Project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. With the exception of construction-related hazards such as fuels, lubricants, adhesives, solvents and asphalt wastes, the proposed Project will not generate or require the use or storage of significant quantities of hazardous substances. The photovoltaic panels used in the proposed Project are environmentally sealed collections of photovoltaic cells that require no chemicals and produce no waste materials. There is no a battery backup component, thus minimizing the need for transporting, using, or disposing of the hazardous materials that may be associated with the project. Furthermore, standard operating procedures will prevent the use of these materials from causing a significant hazard to the public or environment.

c) **No Impact.** There are no existing or proposed schools within one-quarter mile of the proposed Project site. Additionally, operation and maintenance of the project will not produce hazardous emissions. No significant adverse impacts are anticipated and therefore, no mitigation measures are required.

d) **No Impact.** The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The proposed Project shall not create a significant hazard to the public or the environment. No impacts to this topic shall occur as a result of implementing the proposed Project and, therefore, no mitigation measures are required.

e) **No Impact.** The proposed Project area is not located within an airport land use plan and it is not within two miles of a public airport or public use airport.

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.

g) **No Impact.** Activities associated with the proposed Project will not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. The Project will not result in any road closures that might have an effect on emergency response or evacuation plans in the vicinity of the project site. In addition, all vehicles and stationary equipment will be staged off public roads and will not block emergency access routes. Accordingly, implementation of the proposed Project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

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.

No significant adverse impacts related to Hazards and Hazardous Materials are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IX	**HYDROLOGY AND WATER QUALITY -** Will the project:				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SUBSTANTIATION:

a) **Less than Significant Impact.** According to the Preliminary Water Quality Management Plan prepared by United Engineering Group, 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 ACOE, California RWQCB, or CDFG are found on the proposed project area. Potential water quality impacts from the proposed project are associated with short-term (construction-related) erosion/sedimentation and hazardous material use/discharge. As described above in Sections VI.b and VII.a, potential erosion/sedimentation and hazardous materials impacts would be avoided or reduced below a level of significance through conformance with applicable elements of the NPDES Construction Permit. Maintenance of the proposed project would include cleaning, drive motor repair, tracker repair, electrical connection repair, and panel replacement, and cleaning is expected to be conducted annually. Water would be trucked in from a hydrant maintained by the Apple Valley Ranchos Water Company located approximately 7.8 miles east of the site at the intersection of Central Road and Bear Valley Road. The water would contain no cleaning agents or other additives. Water discharged from the cleaning of the panels would be absorbed into the soils onsite.

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 would be trucked in from a hydrant maintained by the Apple Valley Ranchos Water Company located approximately 7.8 miles east of the site at the intersection of Central Road and Bear Valley Road. 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

There are four unnamed washes that traverse the project site however no major concentrations of runoff that originate within the project area. The general grade of the area lends itself to sheetflow that eventually drain into a regional wash (United Engineering Group, November, 2011.) The existing drainage patterns would not be significantly altered to install the selected technology. Minor grading would occur to allow the installation of PV panels across this existing feature and to install aggregate base access roads. The interior access roads will be designed to create fields to hold increased runoff flows within the solar array areas.

Furthermore, according to the Preliminary Drainage Study prepared for this 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 15 Mile Valley USGS 7.S-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 project proposes no habitable structures. The site is designated Flood Zone D, which are characterized as areas in which flood hazards are undetermined but possible.

h) **No Impact.** The proposed Project will not place within a 100-year flood hazard area structures that will impede or redirect flood flows. [See above discussion IX (g)].

i) **No Impact.** The Project will not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, because the project site is not within any identified path of a potential inundation flow that might result in the event of a dam or levee failure or that might occur from a river, stream, lake or sheet flow situation.

j) **No Impact.** The Project site will not be subject to inundation by seiche, tsunami, or mudflow A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. Due to the inland location of the proposed project, tsunamis are not considered a threat. A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. No impacts are expected to occur because the project is not adjacent to any marine or inland water bodies. The soils in the project area are moderately well-drained, the terrain is relatively flat, and mudflows have not historically been an issue in the proposed Project area.

No significant adverse impacts related to Hydrology and Water Quality are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
X.	**LAND USE AND PLANNING** - Will the project:				
a)	Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

SUBSTANTIATION:

a) **No Impact.** The project will not physically divide an established community, because there are no established residential communities present in the Project area. The proposed Project area is located in an unincorporated part of the County that has sparse residential development and will occupy an area that is currently vacant.

b) **Less than Significant Impact**. The current General Plan land use designation for the proposed Project area is Rural Living (RL-5). The RL-5 land use district allows development of solar electrical power generation on sites greater than 20 acres. Electric power generation is allowed on the proposed Project site subject to a Conditional Use Permit. No General Plan Amendment is required; therefore, impacts are considered less than significant.

c) **No Impact**. The proposed Project does not conflict with any applicable habitat conservation plans or natural community conservation plans.

No significant adverse impacts related to Land Use and Planning are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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)).

No significant adverse impacts related to Mineral Resources are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☒	☐	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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

a) **Less than Significant with Mitigation Incorporated**. With the exception of a few scattered residences, the proposed Project is adjacent to mostly undeveloped and/or vacant lands. For the existing residents in the area, noise generated from the proposed Project could potentially temporarily generate noise levels in excess of standards established in the County General Plan or Noise Ordinance, or applicable standards of other agencies. Specifically, construction of the proposed Project may potentially create some elevated short-term construction noise impacts from construction equipment; however, these activities shall be limited to daytime hours and shall comply with the mitigation measure NOISE-1 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 (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 facility is primarily unmanned and noise impacts are not a concern.

f) **No Impact.** The proposed Project area is not located within the vicinity of a private airstrip.

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

Mitigation Measures

NOISE-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 NOISE-1 – Prior to Grading/Land Disturbance]

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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 24 months, with a maximum of 150 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.

No significant adverse impacts related to Population and Housing are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☐	☒	☐
	Police Protection?	☐	☐	☒	☐
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other Public Facilities?	☐	☐	☐	☒

SUBSTANTIATION:

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

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

Police Protection – Less than Significant Impact. The proposed Project area and other unincorporated portions of the County are served by the San Bernardino County Sheriff's Department. The proposed Project will not impact service ratios, response times, or other performance objectives related to police protection. However, during construction, some public services including police protection may be required but these will be short-term requirements and will not require increases in the level of public service offered or affect these agencies' response times. In order to protect against theft and vandalism the proposed Project will employ its own security patrol crews to protect the project site during construction and operation of the project. The

project will incorporate up to eight foot tall security fencing and security camera systems.

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

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

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

No significant adverse impacts related to Public Services are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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.

No significant adverse impacts related to Recreation are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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.	☐	☐	☒	☐
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.	☐	☐	☒	☐
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?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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 Desert View Road. 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

Lucerne Valley Desert View Ranch Generating Facilities Construction Trip Generation

Construction Vehicles					Vehicle Trip Generation							PCE Trip Generation						
						AM Peak Hour			PM Peak Hour				AM Peak Hour			PM Peak Hour		
Description	Quantity	Roundtrips	Type	PCE	ADT	in	out	total	in	out	total	ADT	in	out	total	in	out	total
Phase 1: Site Preparation																		
Workers	45	1	Passenger	1	90	45	0	45	0	45	45	90	45	0	45	0	45	45
Water Truck	2	7	Large Truck	2	28	14	0	14	0	14	14	56	28	0	28	0	28	28
Back Hoe	2	1	Large Truck	2	4	2	0	2	0	2	2	8	4	0	4	0	4	4
Scraper (Grader)	2	1	Large Truck	2	4	2	0	2	0	2	2	8	4	0	4	0	4	4
Total Phase 1					*126*	*63*	*0*	*63*	*0*	*63*	*63*	*162*	*81*	*0*	*81*	*0*	*81*	*81*
Phase 2: PV System Installation																		
Workers	150	1	Passenger	1	300	150	0	150	0	150	150	300	150	0	150	0	150	150
Pile Drivers	3	1	Large Truck	2	6	3	0	3	0	3	3	12	6	0	6	0	6	6
Back Hoe	2	1	Large Truck	2	4	2	0	2	0	2	2	8	4	0	4	0	4	4
Lift	2	1	Large Truck	2	4	2	0	2	0	2	2	8	4	0	4	0	4	4
Crane	1	1	Large Truck	2	2	1	0	1	0	1	1	4	2	0	2	0	2	2
Water Truck	2	7	Large Truck	2	28	14	0	14	0	14	14	56	28	0	28	0	28	28
Equipment Deliveries	1	5	Large Truck	2	10	5	0	5	0	5	5	20	10	0	10	0	10	10
Total Phase 2					*354*	*177*	*0*	*177*	*0*	*177*	*177*	*408*	*204*	*0*	*204*	*0*	*204*	*204*

Notes:
PCE = passenger car equivalent. A large truck has a PCE of 2. All other vehicles have a PCE of 1.
ADT = average daily traffic

Impacts to local traffic on Desert View Road 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 177 peak hour trips during PV system installation), the volume increase will be negligible compared to the typical traffic volume. Signage and flagman will be utilized if needed to decrease delays on Desert View Road.

During project operation, the project will be un-manned; as a result, minimal additional traffic will be generated by facility operation for periodic maintenance. It is anticipated that the panels would be washed four times per year resulting in 118 truck trips generated during operation. An additional 30 worker trips are anticipated relating to panel washing and maintenance activities

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 Desert View Road

c) **No Impact.** The proposed Project will not affect air traffic patterns as there are no airports in the vicinity of the project site.

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

d) **No Impact.** The proposed Project will not include design features that will affect traffic safety, nor will it cause incompatible uses (such as farm equipment) on local roads. In addition, no new roads are being proposed as part of this project; consequently, there shall be no impacts. The gates into the facility will be inset to allow vehicle stacking at the gate that is off the traveled roadway.

e) **Less than Significant Impact**. The proposed Project will not result in inadequate emergency access to the project area. During project construction, all vehicles will be parked off public roads and will not block emergency access routes. The proposed Project will not result in any closures of Indian Trail, Morongo Road, or Valle Vista Road that might have an effect on emergency access in the vicinity of the Project site.

f) **No Impact.** The proposed Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities. No alternative transportation policies, plans, or programs have been designated for the proposed Project area.

No significant adverse impacts related to Transportation/Traffic are identified or anticipated. Therefore, no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVI.	**UTILITIES AND SERVICE SYSTEMS -** Will the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f)	Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

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**. 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 approximately 9 months. Water will be applied via water trucks. It is estimated that approximately 40,000 gallons of water per acre will be used for disking, leveling and recompacting the upper 12 inches of soil. This activity will occur during the first four weeks of site construction. Dust control is estimated to use approximately 200 gallons per acre per day. The 198-acre site and the 9-month construction period will result in a construction water requirement of approximately 48.03 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.

. Based on the proposed Project size, approximately 18,000 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 0.22 acre-feet. An additional 163,350 gallons (0.50 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 235,350 gallons (0.72 AF) per year.

Since the proposed Project will not be directly connected to a public water system, water during the construction period will be obtained from the Apple Valley Ranchos Water Company which has indicated there is sufficient capacity to serve the project.

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.

No significant adverse impacts related to Utilities and Service Systems are identified or anticipated. Therefore, no mitigation measures are required.

	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?	☐	☒	☐	☐
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)?	☐	☐	☒	☐
c)	Does the project have environmental effects, which shall cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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 III*, *Air Quality,* where short-term (construction) air quality impacts are discussed. Implementation of mitigation measures *AQ-1* 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-12* will reduce potential impacts to a level considered 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. There are no known projects occurring within the vicinity of the Project site.

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.

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

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.)

AQ-1 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.

[Measure AQ-1 – Prior to Grading/Land Disturbance]

BIO-1 Biological Monitor. Prior to issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the biological monitor subject to the approval of the County of San Bernardino. The biological monitor shall be present at all times during vegetation clearing or ground disturbance, and shall ensure that impacts to biological resources are avoided or minimized to the fullest extent possible. When construction activities have progressed to the point where biological resources are no longer present, as determined by the biological monitor, biological monitoring in the area may be reduced or discontinued with approval from the County of San Bernardino. The biological monitor shall have the authority to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. [Mitigation Measure BIO-1 – Prior to Grading/Land Disturbance]

BIO-2 Pre-Construction Burrowing Owl Surveys and Passive Relocation. Within 14 days prior to ground disturbance, the Applicant shall retain a qualified biologist to conduct burrowing owl surveys within the area to be disturbed. The survey shall be performed by walking parallel transects spaced no more than 20 meters apart, and shall be focused on detecting burrows that are occupied, or are suitable for occupation, by the burrowing owl. The results of the surveys, including graphics showing the locations of any active burrows detected and any avoidance measures required, shall be submitted to the County of San Bernardino and CDFG within 14 days following completion of the surveys. If active burrows are detected, the following take avoidance measures shall be implemented:

- If burrowing owls are observed using burrows on-site during the non-breeding season (September through January, unless determined otherwise by a qualified biologist based on field observations in the region), occupied burrows shall be left undisturbed, and no construction activity shall take place within 300 feet of the burrow where feasible (see below).

- If avoiding disturbance of owls and owl burrows on-site is infeasible, owls shall be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with California Burrowing Owl Consortium (1993) protocols. Specifically, exclusion devices, utilizing one-way doors, shall be installed in the entrance of all active burrows. The devices shall be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows shall then be excavated by hand and/or mechanically refilled to prevent reoccupation. Exclusion shall continue until the owls have been successfully excluded from the disturbance area, as determined by a qualified biologist.
- Any active burrowing owl burrows detected on-site during the breeding season (February through August, unless determined otherwise by a qualified biologist based on field observations in the region), shall not be disturbed. Construction activities shall not be conducted within 300 feet of an active on-site burrow at this season.
  [Mitigation Measure BIO-2 – Prior to Grading/Land Disturbance]

BIO-3

Mojave Desert Tortoise Exclusion Fencing. During the months of April, May, September, or October prior to initiation of construction activities, the Applicant will retain a qualified biologist to conduct Mojave desert tortoise surveys in accordance with the most recent USFWS survey protocol for this species. If Mojave desert tortoises or their recent sign are detected, the Applicant shall not initiate construction, and shall instead contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise.

If survey results are negative, the Applicant shall erect a tortoise exclusion fence surrounding all portions of the site that are proposed for solar development or other ground disturbance. The exclusion fence shall be installed in accordance with the specifications set forth in Chapter 8 of the USFWS' Desert Tortoise Field Manual (USFWS 2009), and installation of the fence shall be overseen by a biologist familiar with the installation of tortoise exclusion fencing. Following installation of the tortoise exclusion fence, the Applicant shall retain a qualified biologist to conduct a second, full-coverage pedestrian survey of all areas encompassed by the exclusion fence. If Mojave desert tortoises or their recent sign are detected, the Applicant shall immediately remove portions of the exclusion fence to prevent entrapment of tortoises, and shall contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise. If no tortoises or their sign are detected during the second survey, construction activities may commence.

All fence inventories shall be inspected at least twice per year. However, 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, vandalism, and accident. 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. Following two to three years of initial inspection, subsequent inspections shall focus on known problem areas which shall be inspected more frequently than twice per year. In addition to semi-annual inspections, problem areas prone to wash-outs shall be inspected following precipitation that produces potentially fence-damaging water flow. A database of problem areas shall be established whereby checking fences in such areas can be done efficiently. [Mitigation Measure BIO-3 – Prior to Grading/Land Disturbance]

BIO-4

Pre-Construction Mojave Desert Tortoise Surveys and Avoidance. Within 14 days prior to construction-related ground clearing and/or grading, the Applicant shall retain a qualified biologist to conduct surveys for signs of occupancy by the Mojave desert tortoise. Surveys shall cover the entire area proposed for disturbance, shall be conducted by walking parallel transects spaced no more than 10 meters apart, and shall focus on detecting any live tortoises or their sign, including carcasses, burrows, palates, tracks, and scat. Should any sign indicating the presence of Mojave desert tortoise be detected, the Applicant shall not proceed with ground clearing and/or grading activities in the area of the find, and shall instead contact the USFWS and CDFW to develop an avoidance strategy and/or seek authorization for incidental take of Mojave desert tortoise.

The results of the pre-construction surveys, including graphics showing the locations of any tortoise sign detected, and documentation of any avoidance measures taken, shall be submitted to the USFWS, CDFG, and the County of San Bernardino within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable federal and state laws pertaining to the protection of Mojave desert tortoise. [Mitigation Measure BIO-4 – Prior to Grading/Land Disturbance]

BIO-5

Mohave Ground Squirrel. Prior to the issuance of Grading Permits or any land disturbing activities on site the applicant will need to apply for an Incidental Take Permit (2081 Permit) from the California Department of Fish and Wildlife (CDFW) and provide suitable mitigation fees for the purchase of compensatory mitigation. However, In lieu of applying for the Incidental Take Permit, the applicant may conduct a live-trapping survey to definitively determine the presence or absence of the species on site. The live trapping survey must be conducted during the spring months (March – June) and if the species is not detected during the trapping period, mitigation may not be required by CDFW. However, if the species is detected, the Take Permit and appropriate mitigation will be required. [Mitigation Measure BIO-5 – Prior to Grading/Land Disturbance]

BIO-6

Worker Environmental Awareness Program. Prior to any construction activities on the project site, the Applicant will implement a Worker Environmental Awareness Program (WEAP) to educate on-site workers about sensitive environmental issues associated with the Project. The program will be administered to all on-site personnel, including the Applicant's personnel, contractors, and all subcontractors, on the first day of work prior to the employee's commencing work on the site. The WEAP will place special emphasis on the protected species that have potential to occur within the site, including the Mojave desert tortoise, Burrowing owl, Mohave ground squirrel, among other plant and wildlife species. The program will include the following elements:

- A presentation, developed by or in consultation with a qualified biologist, discussing the sensitive biological resources with potential to occur on-site, and explaining the reasons for protecting these resources and penalties for non-compliance;
- Brochures or booklets, containing written descriptions and photographs of protected species as well as a list of site rules pertaining to biological resources, to be provided to all WEAP participants;
- Contact information for the project biological monitor, and instructions to contact the monitor with any questions regarding the WEAP presentation or booklets;
- An acknowledgement form, to be signed by each worker indicating that they received WEAP training and will abide by the site rules protecting biological resources; and,
- Conspicuous stickers, identifying the project and signifying WEAP completion, to be distributed immediately following WEAP training and required on personnel hard hats.

- The project Applicant will be responsible for ensuring that all on-site personnel, throughout the duration of project construction, receive WEAP training. A training log, to be signed by all on-site personnel immediately following WEAP training, will be maintained on the project site during construction to document compliance with this measure.
  [Mitigation Measure BIO-6 – Prior to Grading/Land Disturbance]

BIO-7

Nesting Bird Season. All clearing and grubbing of the project site should take place between August 15 and February 15. Winter site clearing shall insure that nesting birds are not present and impacted. In accordance with the Migratory Bird Treaty Act (MBTA), if vegetation removal shall occur during the bird-nesting season, generally February 15 to August 15, a qualified biologist ornithologist will examine the site to avoid impacts to nesting birds. shall conduct preconstruction bird nesting surveys within 200 feet (or up to 300 feet depending on topography or other factors and 500 feet for raptors) to avoid impacts to nesting birds. If active bird nest(s) are detected during the pre-construction nesting surveys, the qualified ornithologist will establish an adequate no disturbance buffer around the active nest(s) shall be established as determined by a qualified biologist until the nest(s) have fledged to ensure the nesting birds are not disturbed until the young birds have fledged. [Mitigation Measure BIO-7 – Prior to Grading/Land Disturbance]

BIO-8

Permanent Perimeter Fencing. Prior to installation of the project's security fence, a pre-construction survey for desert tortoises within and adjacent to (within 500 feet) the project site should be performed. The survey shall be initiated within one (1) week of the fence installation, and concluding no more than 48 hours prior to installation. The survey should be conducted using pedestrian transects spaced at no more than 10 meters. A second pre-construction survey should be conducted within 24 hours of the fence installation, and be restricted to the fence alignment and its immediate area. Should any tortoises be discovered within the proposed development area or immediately adjacent to the proposed fenced area, a contingency plan (as described under the *County General Conditions, Project Design and Construction Features* section) shall be implemented. [Mitigation Measure BIO-8 – Prior to Grading/Land Disturbance]

BIO-9

Biological Monitoring During Construction of Security Fence. During installation of the project's security fence which shall include tortoise exclusion fencing, a biologist experienced with desert ecology and desert tortoise biology shall be present to ensure that disturbance to the habitat on and near the project site is kept to a minimum, and to prevent take of tortoises. The biological monitor shall have the authority to stop construction activities if desert tortoises or their burrows are threatened, or if rules protecting tortoises and their habitat (i.e., adherence to speed limits, picking up trash, etc.) are not being followed by construction personnel. [Mitigation Measure BIO-9 – Prior to Grading/Land Disturbance]

BIO-10

Native Tree Removal and Relocation Plan. Prior to any land disturbance the developer shall prepare and submit a native tree removal plan indicating exactly which trees or plants are proposed to be removed or relocated. The plan shall be prepared by a Desert Native Plant Expert in accordance with the County's Plant Protection and Management Ordinance, and shall be approved prior to any land disturbance and/or removal of any trees or plants. Every effort shall be made to minimize vegetation removal. Native vegetation shall be flagged for protection. A project revegetation plan would be prepared for areas of native habitat temporarily impacted. [Mitigation Measure BIO-10 – Prior to Grading/Land Disturbance]

BIO-11 Transplanting and Relocation of Native Trees and Plants. All transplanting approved by the County of San Bernardino must be initiated and completed under the supervision of a Desert Native Plant Expert. Approval of such transplant must take into consideration the time of year, the plant's original and transplanted physical orientation, prevailing wind direction, soil type of the original and transplanted locations, and other related attributes which may affect the successful transplantation of the Joshua Tree(s) and Yuccas in question as determined by the Desert Native Plant Expert. Joshua Trees and Yuccas that are proposed to be removed shall be transplanted or stockpiled for future transplanting wherever possible. In the instance of stockpiling and/or transplanting the permittee has submitted and has had the approval of a Joshua Tree and Yucca maintenance plan prepared by a Desert Native Plant Expert. This plan shall include a schedule for maintenance and a statement by the Desert Native Plant Expert that this maintenance plan and schedule will be implemented under his/her supervision. The schedule shall include the requirement that a maintenance report is required at the end of the project or at six (6) month intervals, evidence to the satisfaction of the Planning Section that the Desert Native Plant Expert has supervised the scheduled maintenance to the extent that all transplanted and stockpiled plants have been maintained in such a manner to insure the highest practicable survival rate. In the event that this report is not satisfactory, a tree and plant replacement plan and implementation schedule prepared by a Desert Native Plant Expert may be required. [Mitigation Measure BIO-11 – Prior to Grading/Land Disturbance]

BIO-12 Cactus Salvage Plan. Prior to issuance of a grading permit, the Applicant shall submit a Cactus Salvage Plan to the County of San Bernardino and the CDFG for approval. The Cactus Salvage Plan shall contain the following elements:

- A spatial inventory of all native cacti within the project site, including species and locations;
- A quantitative assessment of the numbers of each cactus species to be removed by the project; and,
- Proposed measures to retain as many cacti as is practical on the project site, and a spatial and quantitative description indicating the species and locations of cacti to be preserved.

[Mitigation Measure BIO-12 – Prior to Grading/Land Disturbance]

NOISE-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 NOISE-1 – Prior to Grading/Land Disturbance]

GENERAL REFERENCES

Alquist-Priolo Special Studies Zone Act Map Series (PRC 27500)

California Environmental Quality Act (CEQA) Guidelines, Appendix G.

California Fish and Game Code, Migratory Bird Treaty Act and Section 3503.

California Standard Specifications, July 1992

California Natural Diversity Database, accessed at www.dfg.ca.gov/biogeodata/cnddb/.

California Department of Resources Recycling and Recovery (CalRecycle) Accessed at http://www.calrecycle.ca.gov/SWFacilities/Landfills/ on August 17, 2012.

California Department of Conservation. County of San Bernardino Important Farmland Map. 2010.

California Geological Survey. Alquist-Priolo Earthquake Fault Zones Maps. Assessed at http://www.consrv.ca.gov/cgs/rghm/ap/Pages/index.aspx on August 16, 2012.

Water Quality Control Plan – Colorado River Basin Region 7. Colorado River Regional Water Quality Control Board (CRRWQB) approved by the State Water Resources Control Board on February 17, 1994

Federal Emergency Management Agency (FEMA). *Flood Insurance Rate Map and Flood Boundary Map*.

Mojave Desert Air Quality Management District California Environmental Quality Act (CEQA) and Federal Conformity Guidelines (2009)

Mojave Desert Air Quality Management District Antelope Valley Air Pollution Control District Emissions Inventory Guidance Mineral Handling and Processing Industries. 2000. www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=401

San Bernardino Associated Government's *Congestion Management Plan – 2007 Update.* Adopted December, 2007.

San Bernardino County. *Greenhouse Gas Emissions Reduction Plan*, Adopted December 6, 2011.

San Bernardino County. *Development Code*, 2007

San Bernardino County. *General Plan*, adopted 2007.

San Bernardino County. *General Plan Environmental Impact Report*, 2007.

San Bernardino County. *Lucerne Valley Community Plan*. Adopted March 13, 2007.

San Bernardino County. Identified Hazardous Materials Waste Sites List, April 1998

San Bernardino County. Countywide Integrated Waste Management Plan. Prepared by the Department of Public Works. December 2007.

San Bernardino County. *San Bernardino County Stormwater Program, Model Water Quality Management Plan Guidance.*

San Bernardino County of, Road Planning and Design Standards.

South Coast Air Quality Management District, CEQA Air Quality Handbook, November 1993.

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Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary Map.

Mojave Desert Air Quality Management District (MDAQMD), 2009, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines.

San Bernardino County General Plan (Available online at http://cms.sbcounty.gov/lus/Planning/GeneralPlan.aspx)

San Bernardino County Development Code (Available online at http://cms.sbcounty.gov/lus/Planning/DevelopmentCode.aspx)

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BCR Consulting, 2012. Cultural Resources Assessment (March) *(Not Available For Public Review).*

LSA Associates, 2013. Air Quality Analysis (October.)

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RCA Associated, 2011. Focused Desert Tortoise Survey (October).

RCA Associates, 2012. Habitat Assessment and Burrowing Owl Burrow Survey (October).

United Engineering Group, 2011. Preliminary Drainage Report (November).