

County of San Bernardino

INITIAL STUDY/ADDENDUM

Project Number:

P201400141

Date: December 18, 2014

Project Title: Victorville Sanitary Landfill Solar Project

Contact:

County of San Bernardino
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Project Location:

The project boundary encompasses approximately 90 acres of the 491-acre project parcel (APN 0472-011-34) in an area that is designated a Phase 3 expansion area of the Victorville Sanitary Landfill. The project would develop 57.6 acres within the 90-acre Phase 3 expansion area; 32.4 acres would remain undisturbed. The landfill is adjacent to public lands administered by the Bureau of Land Management (BLM) associated with the Quartzite Mountains to the northeast. The project is adjacent to the northern boundary of the City of Victorville and west of Interstate 15 (I-15), at Stoddard Wells Road. The property address is 18600 Stoddard Wells Road, Victorville, CA 92307. See Figures 1, Regional Setting and 2, Local Setting.

Project Applicant Name and Address:

Victorville Landfill Solar, LP
Ben Lively, Director, Project Development
44 Montgomery St. #2200
San Francisco, CA 94104

General Plan and Zoning Designation:

The current General Plan and land use designation for the proposed project area is IN (Institutional), which permits development of electrical power generation with the processing and approval of a Conditional Use Permit.

Project Abstract:

The project is a proposed 10-megawatt (MW) Alternating Current (AC) photovoltaic (PV) system on 57.6 acres, within a portion of 90 acres of land included within the Phase 3 expansion area of the Victorville Sanitary Landfill (VSL). The site is owned by the County of San Bernardino and would be leased to Victorville Landfill Solar, LP for exclusive site control for the project's duration. Ancillary structures and improvements are a part of the project, including, but not limited to transformers on inverter pads, a single-axis tracking or fixed tilt mounting system, fencing, paved and all weather access roads and in an interconnection to a 840-foot long 33-Kilovolt (kV) generation tie line, which will tap into the existing "Nisqually" 33-kV circuit from Southern California Edison's (SCE) Victorville substation.

Surrounding Land Uses and Setting:

The project site is located in a relatively undeveloped area. The areas to the north and west of the project site are vacant land. Vacant land is also located to the south of the project site within the City of

Victorville. Commercial uses are located approximately 0.25 mile to the southeast and the I-15 freeway is located approximately 0.50 mile to the southeast. The surrounding area that is privately held is developed with a few commercial and industrial uses, including a private airstrip, located near the Stoddard Wells Road intersection with the landfill's access road, approximately 1,500 feet from the site. Portions of the VSL facility are located to the east of the project site.

County Action Requested

- Conditional Use Permit (CUP): As described in San Bernardino County Development Code Section 82.04.040, "electrical power generation" and "utility facilities" are conditionally permitted within the IN (Institutional) zone. Additionally, Section 84.29.020, part of the Renewable Energy Generation Facilities portion of the Code, specifies that solar power generation facilities are conditionally permitted within the IN zone. A CUP is therefore requested to permit development of the project.
- Major Variance: For the modification of existing site topography, where existing grades exceed 5 percent on a portion of the site, as required by Section 84.29.035(b)(7) of the San Bernardino County Code.

Other Public Agencies Whose Approval is Required

- San Bernardino County Department of Public Health, Division of Environmental Health Services
- CalRecycle

Persons Who Prepared Initial Study

EPD Solutions, Inc.

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Persons Contacted and/or Consulted

County of San Bernardino

- Fred Cole, Solid Waste Management Division
- David Doublet, Solid Waste Management Division
- Juan Espinoza, Environmental Health
- Diana Almond, Environmental Health

Public Agencies

- Gerry Salas, United States Army Corps of Engineers
- Ray Bransfield, United States Fish and Wildlife Service
- Wendy Campbell, California Department of Fish and Wildlife
- Jan Zimmerman, Regional Water Quality Control District
- Dianne Ohiosumua, CalRecycle

Other

- Lori Charpentier, SCE
- Paul Clark, SCE

Figure 1: Regional Setting Victorville Solar

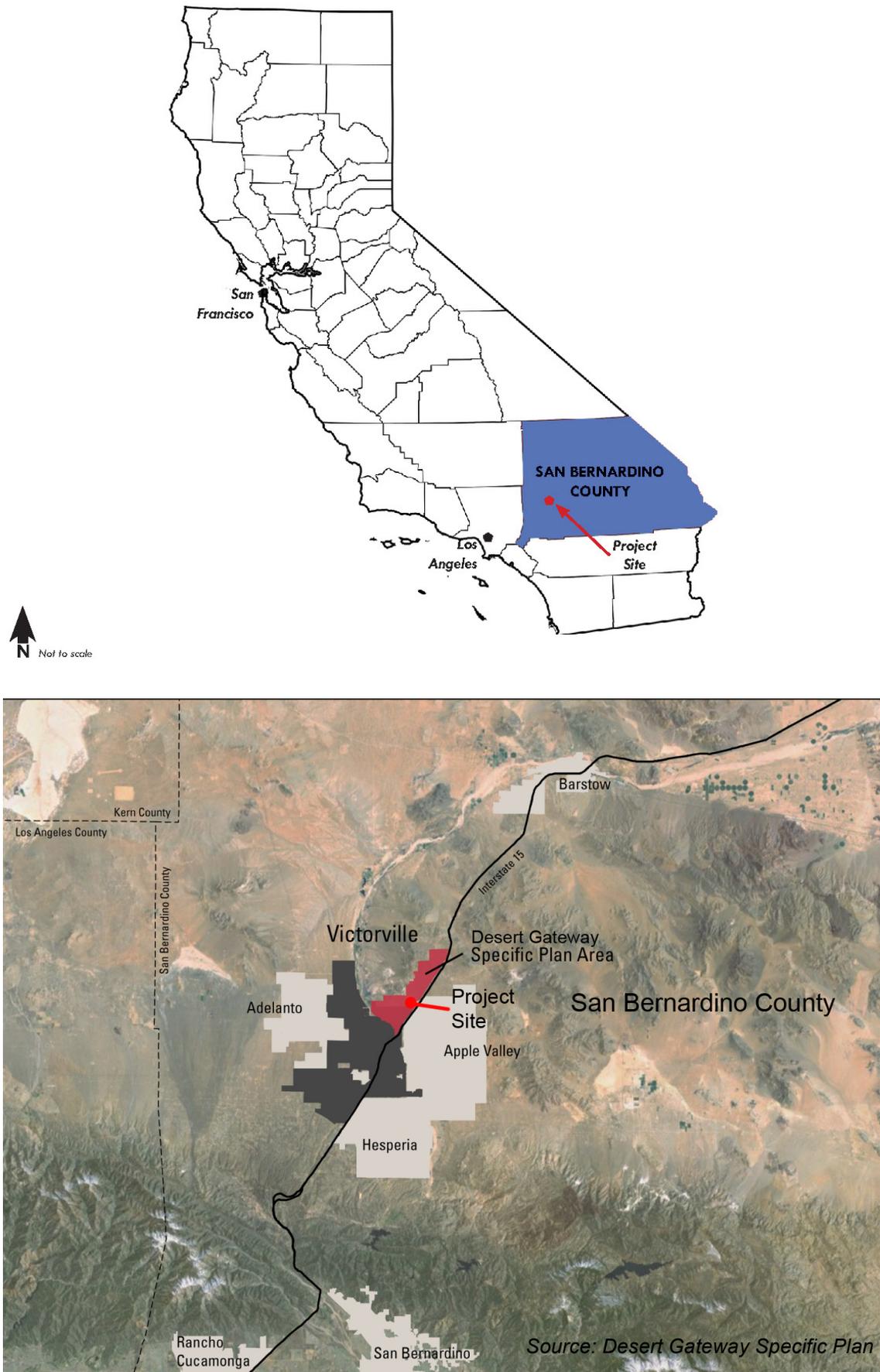
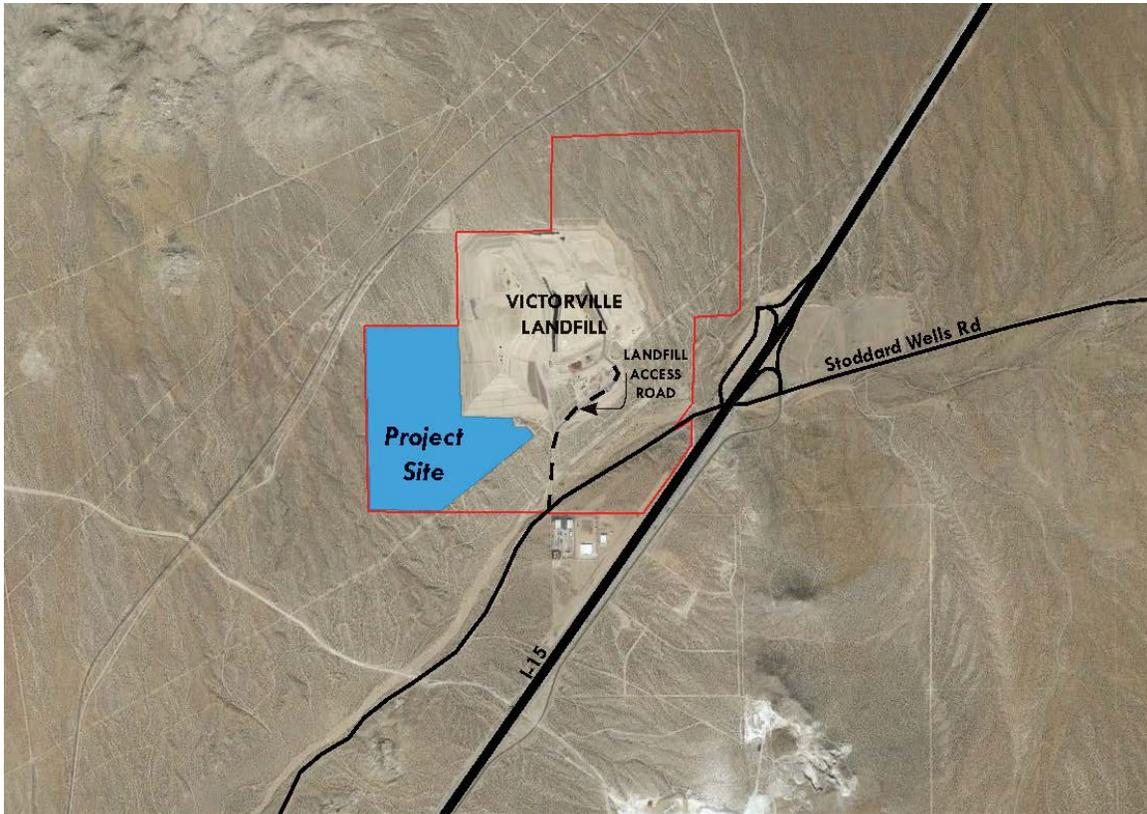


Figure 2: Local Setting



I. ENVIRONMENTAL BACKGROUND

Final Program Environmental Impact Report

In 2004, the County of San Bernardino completed a Final Program Environmental Impact Report (FPEIR), which was prepared in support of the Lateral Expansion, of the Victorville Sanitary Landfill (VSL) for a 274-acre expansion of the landfill adjacent to the existing VSL 67-acre disposal site (State Clearinghouse Number 2002091132). A Notice of Determination (NOD) was filed with the Clerk of the County Board of Supervisors on June 16, 2004, which consisted of a proposed 274-acre lined expansion (aka VSL Expansion Area) adjacent to the existing VSL 67-acre disposal site.

Addendum No. 1 (August 2007)

An Addendum to the 2004 FPEIR was prepared to analyze the environmental impacts of a revised slope ratio increase from 3.5H:1V (horizontal to vertical) ratio to a 2.5:1 ratio for Phase 1A, and a slope ratio correction to show previously permitted and constructed slopes adjacent to Phase 1A of the VSL Lateral Expansion Project. In addition, a Treated Wood Waste handling operation, installation of a new scale, and implementation of a Comprehensive Disposal Site Diversion Program were also proposed at the landfill. A Solid Waste Facilities Permit revision was required to implement the proposed changes in operation at the landfill. No change in the incoming tonnage, personnel, hours of operation; or an increase in the number of vehicles entering the site were proposed. Addendum No. 1 was approved August 2007.

Negative Declaration (April 2009)

The County filed an NOD on April 10, 2009 for the Victorville Sanitary Landfill Scalehouse Replacement Project which removed the two existing temporary scale houses, three existing scales, constructed two permanent scale houses, along with two new scales, three lanes of traffic, a 1,500 gallon septic tank and a 530-gallon freshwater tank.

Categorical Exemption (April 2009)

The County prepared a Solid Waste Facility Permit Joint Technical Document (JTD) Amendment Application in order to begin collecting e-waste at the VSL. On April 2, 2009 a Notice of Exemption was filed with Clerk of the County Board of Supervisors.

Addendum No. 2 (March 2011)

Addendum No. 2 to the FPEIR was approved by the Board of Supervisors solely for the purpose of the County providing a long-term option lease of the site for the construction and operation of a solar generating facility. Pursuant to the option, the option to lease cannot be exercised until a further project-specific environmental analysis of the potential impacts from the development of the proposed solar array is completed. The Option Agreement and Addendum were approved by the Board of Supervisors on March 11, 2011.

II. BASIS AND PURPOSE OF THE INITIAL STUDY/ADDENDUM

Pursuant to Sections 15051 and 15367 of the State California Environmental Quality Act (CEQA) Guidelines, the County of San Bernardino, Land Use Services is the Lead Agency for CEQA compliance associated with the project because it will approve, carry out, and implement the project and will be the first agency to approve the project.

An agency may prepare an addendum to a CEQA document pursuant to CEQA Guidelines Section 15164 that states, in pertinent part, that: "The lead agency [...] shall prepare an addendum to a previously certified [CEQA document] if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent [CEQA document] have occurred." An agency may prepare an addendum to document its decision that a subsequent CEQA document is not required. (CEQA Guidelines Section 15164, subdivisions (a) and (e) and Section 15162, subdivision (a)).

Based on the analysis in this Initial Study and Addendum, the County of San Bernardino determined that the potential impacts of the project were previously analyzed in or are substantially similar to the impacts analyzed in the FPEIR and that none of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply. The County of San Bernardino determined that they would prepare this Addendum to: (1) evaluate whether the project's environmental impacts were already analyzed in the FPEIR; (2) document County's findings with respect to the project and its environmental determinations; and, (3) evaluate and document that a new, supplemental or subsequent EIR, Negative Declaration (ND), or Mitigated Negative Declaration (MND) or other CEQA document was not warranted.

This Addendum is the appropriate CEQA documentation for the project because:

- the project proposes a solar energy power plant as an interim use on 90 vacant acres that are part of the future VSL Phase 3 Expansion Area, the impacts of which have been previously analyzed in the FPEIR;
- the project would not lead to increased environmental impacts beyond those that are already identified in the FPEIR;
- the project does not modify previously-analyzed impacts or findings in any substantive way;
- no new mitigation measures are required;
- none of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply; and,
- no new significant adverse project-specific or cumulative impacts in any environmental areas were identified, nor would any project-specific or cumulative impacts in any environmental areas be made worse as a result of implementing the project.

None of the conditions described in Section 15162 of the CEQA Guidelines have occurred. Specifically, there have not been: (1) changes to the Project that require major revisions to the prior FPEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; (2) substantial changes with respect to the circumstances under which the Project is undertaken that require major revisions to the previous FPEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or (3) the availability of new information of substantial importance relating to significant effect or mitigation measures or alternatives that was not known and could not have been known when the FPEIR was certified as complete. The project will continue to comply with the adopted applicable MMRP.

III. PROJECT SETTING

A. Regional and Local Setting

The proposed project is sited on a 90-acre portion of the 491-acre VSL, owned by the San Bernardino County. The VSL is located in the Victor Valley area of the High Desert region, within unincorporated San Bernardino County. The High Desert region is located on the north side of the San Bernardino and San Gabriel mountain ranges stretching from the Los Angeles County border on the west to the Arizona border on the east, north to the Nevada border. The Victor Valley encompasses the area of the High Desert immediately north of the Cajon Pass. Figure 1 shows the regional setting of the VSL and surrounding area in the context of San Bernardino County.

The project boundary encompasses approximately 90 acres of the 491-acre project parcel (APN 0472-011-34) in an area that is designated a Phase 3 expansion area of the VSL. The landfill is adjacent to public lands administered by the Bureau of Land Management (BLM) associated with the Quartzite Mountains to the northeast. The project is adjacent to the northern boundary of the City of Victorville and west of Interstate 15 (I-15), at Stoddard Wells Road (See Figures 1, Regional Setting and 2, Local Setting). It is also within the Desert Gateway Specific Plan, which encompasses land within the City of Victorville corporate boundary and the City's Sphere of Influence (SOI). The project site is outside of the City's corporate boundary but within the City's SOI.

B. Existing Site Land Uses and Conditions

The proposed solar project is sited on 57.6 acres within the VSL Phase 3 expansion area. The Phase 3 expansion area is a vacant 90-acre portion of the 491-acre VSL. Except for the VSL, maintained dirt roads surrounding the site, the rail line to the north and an existing mining operation to the northwest, the project site is located in a relatively undeveloped area. The areas to the north and west of the project site are vacant land. Vacant land is also located to the south of the project site, with sparse commercial uses located approximately 0.25 mile away and the I-15 freeway located approximately 0.50 mile to the southeast. Portions of the VSL facility are located to the east of the project site. Refer to Figure 2 (Local Setting) and Figures 3a and 3b (Site Photographs) for an aerial photograph of the project area and photographs of the project site and surrounding area.

Although not developed with structures, two groundwater monitoring wells and two soil-pore gas monitoring stations, associated with the monitoring of the adjoining phases of the VSL, are located on the property. The 90-acre Phase 3 site is enclosed by a 4-foot high desert tortoise fencing.

C. Existing General Plan Land Use Zoning Designations

The current General Plan and land use designation for the proposed project area is IN (Institutional) which allows development of electrical power generation with a Conditional Use Permit.

D. Existing Victorville Sanitary Landfill Expansion Phasing

In 2004, the County of San Bernardino completed a FPEIR in support of the lateral expansion of the VSL from a 67-acre disposal site.

The approved expansion of the VSL will be conducted in three phases to accommodate the soil excavation, stockpiling, and installation of the groundwater protection system (i.e., liner and leachate collection and removal system (LCRS)) needed for the ongoing operation of the landfill. The phases are labeled Phase 1, Phase 2 and Phase 3, as shown on Figure 4, *VSL Phasing Map*.

Phase 1, which is the current phase in which the VSL is operating, is subdivided into two subphases 1A and 1B. With the exception of the existing 67-acre landfill footprint, each new area to be filled would be excavated between 20 to 200 feet below grade. The excavated area would then be lined with an approved liner system and environmental controls such as the leachate collection and removal system. Subsequent filling in Phase 1A and Phase 1B will create a deck area of 3,180 feet above mean seal level (msl) (including the final cover system). Phase 1 (Both A and B) will be active for approximately 30 years before reaching capacity.

Construction of Phase 2 is anticipated to begin in 2040. The Phase 2 expansion area is located on the northeast portion of the Victorville Sanitary Landfill property. The excavation of the Phase 2 area would range in depth between 20 feet and 80 feet below grade and would have an average floor slope of 1.5 percent. Excavated slopes would be developed at 2H: 1V with benches where required. Filling earlier sequences of Phase 2 would occur simultaneously with excavation of later sequences of this phase. When completed, Phase 2 would fill to an approximate elevation of 3,160 feet above msl.

The Phase 3 expansion area is located on the southwest portion of the VSL and is anticipated to begin construction in 2065. The excavation of the Phase 3 area would reach depths of 200 feet below grade and have an average floor slope of 1.5 percent. Excavated slopes would be developed at 2H: 1V with benches at intervals determined by depth. The material cut plan for Phase 3 is a deep narrow configuration. Based on the projected refuse inflow rate for this phase, larger mass excavations would be required. Therefore, it is anticipated that Phase 3 would be excavated in a maximum of four sequences from south to north. The floor would be finished at a grade of 1.5 percent to allow any leachate collected to flow to the lowest point and be collected in a sump for disposal.

Filling and operations will ultimately result in an approximate 341-acre landfill footprint with a final grading configuration at an elevation of 3,180 feet above msl.

Figure 3a: Site Photos

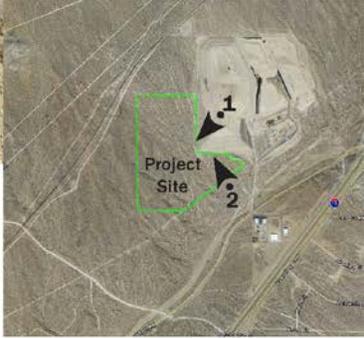


Figure 3b: Site Photos



IV. PROJECT DESCRIPTION

The proposed Victorville Landfill solar project is a +/-10 MWac renewable solar electric power generation facility on a vacant area that is designated as part of the Phase 3 expansion area of the VSL.

A. Overview of Solar Technology

The project proposes to use photovoltaic (PV) panels, which have solar cells that convert sunlight into electricity. PV gets its name from the process of converting light (photons) to electricity (voltage), which is called the PV effect. PV cells are located on panels, which may be mounted at a fixed angle or as part of a single-axis tracking system facing a southerly direction. The combination of solar panels into a single system creates a solar array. For large electric utility or industrial applications, hundreds of solar arrays are interconnected to form a large, utility-scale PV system.

Traditional solar cells are made from silicon, are usually flat-plate, and are generally the most efficient. Second-generation solar cells are called thin-film solar cells because they are made from amorphous silicon or non-silicon materials such as cadmium telluride. Thin-film solar cells use layers of semiconductor materials only a few micrometers thick. Because of their flexibility, thin film solar cells can double as rooftop shingles and tiles, building facades, or the glazing for skylights. Third-generation solar cells are being made from a variety of new materials besides silicon, including solar inks using conventional printing-press technologies, solar dyes, and conductive plastics. Some new solar cells use plastic lenses or mirrors to concentrate sunlight onto a very small piece of high-efficiency PV material.

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

B. Project Features

Major project features would include the following elements. The project site plan is provided in Figure 5, *Site Plan*. The solar project is expected to be in operation for at least 20 years. While the project may be decommissioned after the 20 year life of the power purchase agreement, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. At the end of the economically useful life of the facility, it would be decommissioned and the property returned to its end use..

Solar Field

The project would develop 57.6 acres within the 90-acre Phase 3 expansion area of the VSL; 32.4 acres would remain undisturbed. The project will consist of solar panels organized in rows, with ancillary features to include a storage building, inverters, onsite (underground) power distribution lines, switchgear, and related electrical equipment. The solar panels will be mounted at a fixed angle or on single-axis trackers (which rotate to maximize exposure to the sun) and will be a maximum of about 12 feet in height. Individual solar panels will be connected in series to carry direct current (DC) electricity to inverters mounted on small concrete footings. Inverters convert DC electricity to alternating current

(AC); electricity then flows to the switchgear at the northwest corner of the site, and then to Southern California Edison's (SCE) Victor Substation, located 8.5 miles to the south on Highway 18, via an existing distribution line network.

Each solar row would be separated by about 15 to 20 feet (from post to post). Panels, including steel support structures, are typically 8 to 10 feet in height when the panels are at their maximum angle, which is in the early morning and late afternoon when the sun is at the lowest point in the sky. Depending on soil conditions and topography, they can sometime be up to a maximum of 12 feet in height when the panels are at their maximum angle. The trackers would be supported on driven pipe piles, driven H-piles, or reinforced-concrete cast-in-drilled-hole (CIDH) piers. The actual method for attaching the structure to the ground would be determined after analysis of soil conditions is completed. CIDH piers would measure approximately 2 feet in diameter and 6 feet in depth, depending on soil conditions. A cross-section of typical panel layout is provided in Figure 6, *Photovoltaic Array Details*. The panels would be installed at a south-facing fixed angle or on single-axis trackers, which maximize the collection of solar energy by tracking the sun through the day from east to west. Individual PV panels are connected together in series to create a "string" to carry DC electricity. The electrical collection system will be located underground. Conduits and wires will be buried in trenches that run between tracker units and connect the output of each tracker to the inverters. Eight inverters (1,250 kW each) would be located on low-profile steel skids resting on small concrete footings along with metering equipment. The facility would operate year-round, producing electric power during daytime hours.

Power Distribution

The project will be connected to the existing distribution lines that run in a southeast-northwest orientation parallel to the rail lines, northwest of the site with a powerline extension. The length of powerline extension from the project's switchgear pad to reach the interconnection point with the distribution line adjacent to the rail line is expected to be less than 1,000 feet (depending on the precise route selected by Southern California Edison). Approximately four 45 - 50-foot wooden power poles are needed to extend the existing powerline to the switchgear at the northwest corner of the project site where four power poles would be located.

Project Access and Circulation

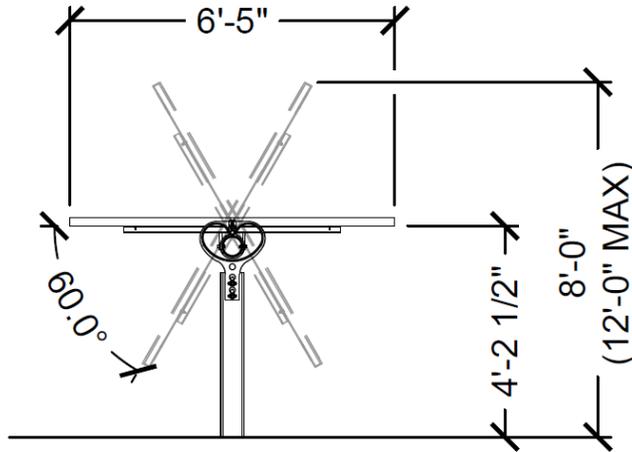
The project provides approximately 25,500 square feet of new roads. The project's primary access would occur at the southeast corner of the site on a new approximately 900-foot-long, 26-foot-wide paved road ("paved offside access road") that follows an existing 20-foot dirt road that connects to VSL's main access road. VSL's main access road connects to Stoddard Wells Road 1,000 feet to the south. The paved offsite access road will connect the project's internal roads to VSL's main access road. No new pavement is proposed within the fence line of the 57.6-acre project site.

There would be two types of internal access roads within the fenced 57.6-acre site; a 26-foot wide road along the perimeter of the solar field and two interior access roads 20 feet in width. Aggregate base or similar all-weather materials will be used for all internal access roads. These materials are pervious, and site imperviousness would be nominal following project construction. An all-weather dirt emergency access road will be provided at the northwest corner of the site that connects to Quarry Road.

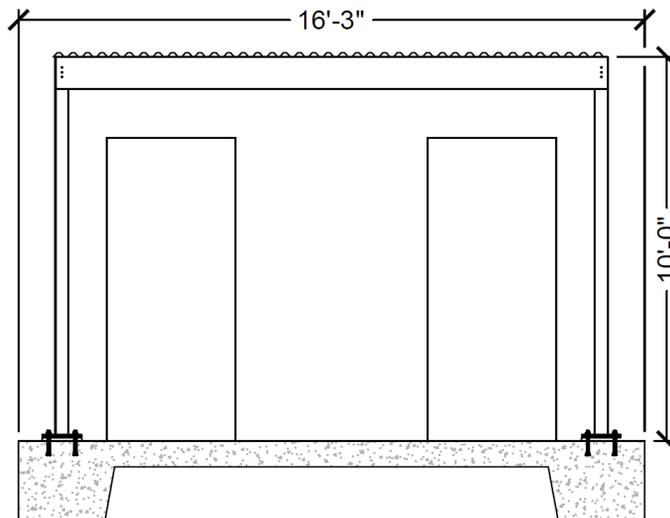
Fencing, Security and Lighting

The developed portion of the project area (57.6 acres of the 90-acre Phase 3 expansion area) would be surrounded by 7,700 linear feet of fencing comprised of a new 8-foot chain link fence that incorporates wind fencing to suppress dust trespass and Desert Tortoise exclusion fencing as a project design feature to replace the existing 4-foot desert tortoise and boundary fencing. During operations, the site will be unmanned, with only occasional visits by maintenance and security staff during the week. County contractors also currently regularly monitor the project boundary and will continue to do so after the project is constructed.

Figure 6. Photovoltaic Array Details



Typical Tracker Row



Typical Inverter Station Pad

Permanent lighting on the site would be provided if required by the County for safety and security; typically, this would be limited to small lighting fixtures at each inverter pad. Lighting would be directed toward the ground from low elevation poles (less than 14 feet in height). Such lighting will be shielded in accordance with County Code requirements.

Meteorological Data Collection System

The project would also include one or more meteorological data collection systems, which would be configured to collect the meteorological data, such as global horizontal irradiance, global irradiance/plane of array, ambient temperature, PV cell temperature, wind speed, wind direction, relative humidity, precipitation, barometric pressure, and visibility. Information gathered from these systems would be used to monitor the PV panels for optimum utilization.

Other Infrastructure

Other ancillary structures onsite include two modular storage trailer units and inverter pads with canopies. These structures would be 12-feet in height or less. Each modular storage unit would cover an area of approximately 12 feet x 44 feet (528 square feet). The project will not require connection to water or sewer lines as the site will be unmanned. Water used during construction will be delivered to the site via trucks from existing, available offsite sources within the Victorville Water District. A telecommunications line to the site would be required. This line would connect from existing underground lines along Stoddard Wells Road, continue north along the existing landfill access road, and the turn west to follow the new solar field access road.

With development of the proposed solar facility, there would be a small reduction in pervious site acreage. Fencing and solar panel supports would have little influence on stormwater flows and the proposed site grading would not alter or concentrate the stormwater flows through the site. Therefore no stormwater or detention facilities would be required. Because the project site would not house any permanent employees, no onsite restroom facilities are proposed. Therefore, no wastewater would be produced and no septic system or other disposal facility would be required.

C. Construction

Construction would occur over an approximately 6-month period. As the terrain on the project site is varied, grading will be required to create a uniform, relatively flat surface for installation of the solar panels, other equipment and internal access roads. The solar arrays will be installed using pile-driving techniques, rather than grading, to minimize soil disturbance in areas that do not require grading to flatten the surface.

Approximately 188,346 cubic yards (cy) of cut and 172,863 cy of fill materials is expected during grading over up to 57.6 acres. The remaining 15,483 cy of cut would be spread around the site. Cut and fill is expected to be balanced onsite, resulting in no import or export of soil. Most grading would be onsite, with about 1-acre of offsite grading required for the paved offsite access road construction. The offsite extension of the powerline would require minimal soil drilling to install the poles. Spoils from the pole installation will be spread adjacent to the poles. There would be no import or export of soils associated with the project.

The construction process would involve grubbing of vegetation; preparation of staging areas and onsite access routes; grading and ground disturbance for the onsite and offsite access roads; installing the PV system; onsite trenching for the electrical DC and AC collection system, including the telecommunication lines; installing the inverter enclosures; installing an underground 34.5-kV line for each collection system that leads to the switchgear; and constructing the pads for the switchgear and ancillary equipment.

Phasing, Staffing, and Equipment

Project construction is expected to take a maximum of 6-months, divided into two phases: 1) site preparation and grading; and, 2) PV system installation.

Phase 1: Site Preparation & Grading

The terrain on the project site is varied and grading will be required to create a uniform, relatively flat surface for installation of the solar panels, other equipment and internal access roads. Grubbing would occur to achieve the required surface conditions. Cut and fill is expected to be balanced onsite, resulting in no import or export of soil. Also during the site preparation phase, staging areas and onsite access routes would be prepared. A worker crew of 30 would be onsite during this phase, which would last approximately two months.

Phase 2: PV System Installation

The second phase includes installation of project electrical equipment. Trackers are typically installed on pile-driven foundations, which are generally at least 6 feet deep. Inverters, transformers, switchgear, and other equipment would be installed on low profile prefabricated steel skids resting on small concrete footings and on concrete pad foundations. It is expected that the fill from these cuts would be placed around the pre-cast foundation in order to divert small, localized flows away from the foundation and prevent their undermining. PV system installation is anticipated to occur over approximately four months. Up to 75 workers would be onsite during this phase of construction.

Table 1 provides a list of the type and number of equipment and vehicles for each construction phase.

Phase Name and Duration	Equipment
Site Prep and Grading (2 months)	2 Dozer
	2 Loader/Backhoes
	2 Graders
	4 Scrapers
	30 person worker crew vehicles or 60 one way trips (daily)
	30 flatbed truck deliveries at 20 miles round trip
	281 gravel dump trucks at 20 miles round trip
PV Installation (4 months)	3 Trenchers
	3 Welders
	2 Rough Terrain Forklifts
	1 Generator Set
	2 Loader/Backhoes
	75 person worker crew vehicles or 150 one way trips (daily)
	50 flatbed vendor deliveries at 50 miles round trip
	65 flatbed truck deliveries at 200 miles round trip (solar panels)
60 concrete trucks at 20 miles round trip	

In total, it is expected that about 57.6 acres of the 90-acre Phase 3 site will be graded which amounts constitute approximately 63.3 percent of the total net area of the site. Cut and fill is expected to affect 188,346 cy of cut and 172,863 cy of fill material; the remaining 15,483 cy of cut would be spread around the site. No import or export of soils is proposed as part of the project.

Construction Water Demands

During construction, water would be used to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. Water for dust control activities can be of non-potable quality (State Water Resources Control Board General Order for Recycled Water Use, June 3, 2014). All construction water would be trucked to the site from available commercial water sources acceptable to the County, including obtaining water deliveries from the Victorville Water District (VVWD). Construction water

would be sourced from a VVWD hydrant located at Dante Street and Stoddard Wells Road (approximately 1.8 miles from the project site, unless otherwise directed by the Water District.

Construction-period water use for typical solar PV projects of this size will be 8,000 gallons per day during the grading period, and 2,500 gallons per day during other activities. Overall water use during construction would therefore be about 15 acre-feet or approximately 4,888,500 gallons.

Applicant has estimated the maximum short-term construction water use to be 15 acre-feet total for both construction phases. This estimate is based on estimates from other solar construction contractors and a review of other CEQA documents prepared for other solar projects in the area. These short-term construction water supply estimates are conservative estimates based on a mass site grading approach.

D. Operations

Project facilities would be automated to allow for operation without staff being present. By nature, solar power generation projects operate during daylight hours, 365 days per year. Staff would visit the site to provide maintenance services and ensure proper operation. Maintenance staff and security personnel would visit the site every one to two days. Activities would be monitored remotely by staff at an offsite location. No large trucks would routinely access the site during operations, and maintenance activities would typically occur during daylight hours.

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

E. Decommissioning

Should operations at the site be terminated, the facility will be decommissioned. A Decommissioning Plan for the project would be prepared and submitted to the County for approval prior to the issuance of a grading permit in accordance with County Development Code Chapter 84.29 (Renewable Energy Generation). While the project may be decommissioned after the 20 year life of the power purchase agreement for the project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. Decommissioning of the site would require the same construction scenario (activities, equipment, duration) as the initial development of the site. In connection with the decommissioning efforts, the applicant (conservatively) estimates that approximately 15 acre-feet, or approximately 4,888,500 gallons, of water will be required in connection with landscaping and other vegetative restoration.

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

F. Project Design Features (PDFs) and Standard Conditions/Existing Plans, Programs, or Policies (PPPs)

Throughout the impact analysis in this Initial Study/Addendum, reference is made to 1) applicant-initiated Project Design Features (PDFs), and 2) existing Standard Conditions/Plans, Programs, or Policies (PPPs) applied to all development on the basis of federal, state, or local law currently in place which effectively reduce environmental impacts. Where applicable, PDFs and PPPs are listed to show their effect in reducing potential environmental impacts. The County would include these PDFs and PPPs along with mitigation measures in the Mitigation Monitoring and Reporting Program (MMRP) and the conditions of approval for the project to ensure their implementation.

The following PDFs are incorporated into the proposed project and will help to reduce and avoid potential impacts:

PDF-AQ1 All perimeter fencing shall be wind fencing or the equivalent, to a minimum of four feet of height or the top of all perimeter fencing. The owner/operator shall maintain the wind fencing as needed to keep it intact and remove windblown dropout. This wind fencing requirement may be superseded by local ordinance, rule or project-specific biological mitigation prohibiting wind fencing

PDF-AQ2 The following signage shall be erected not later than the commencement of construction:

A minimum 48 inch high by 96 inch wide sign containing the following shall be located within 50 feet of each project site entrance meeting the minimum specified text height, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, with the contact name of a responsible official for the site and a local or toll-free number that is accessible 24 hours per day:

"[Site Name] {four inch text}
 [Project Name/Project Number] {four inch text}
 IF YOU SEE DUST COMING FROM {four inch text}
 THIS PROJECT CALL: {four inch text}
 [Contact Name], PHONE NUMBER XXX-XXXX {six inch text}
 If you do not receive a response, Please Call {three inch text}
 The MDAQMD at 1-800-635-4617 {three inch text}"

The following PPPs are incorporated into the proposed project and will help to reduce and avoid potential impacts

PPP-AQ1 *AQ/Operational Mitigation. Operation of all off-road and on-road diesel vehicles/equipment will comply with the County Diesel Exhaust Control Measures [SBCC §83.01.040 (c)], including but not limited to:*

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

PPP-AQ2 *AQ/Dust Control Plan. The developer will prepare, submit, and obtain approval from San Bernardino County Planning of a Dust Control Plan (DCP) consistent with Mojave*

Desert Air Quality Management District guidelines and a letter agreeing to include in any construction contracts/subcontracts a requirement that project contractors adhere to the requirements of the DCP. The DCP will include the following elements to reduce dust production:

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

PPP-AQ3 AQ – Installation. The developer will submit for review and obtain approval from County Planning of evidence that all air quality mitigation measures have been installed properly and that specified performance objectives are being met to the satisfaction of County Planning and County Building and Safety.

PPP-AQ4 Consistent with MDAQMD Rule 403.2 - Fugitive Dust Control for the Mojave Desert Planning Area, the proposed project must implement dust control measures and shall provide educational materials to prevent Valley Fever. Prior to ground disturbance activities, the project operator shall provide evidence to the County that the project operator and/or construction manager has developed a "Valley Fever Training Handout," training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the County within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the County regarding the "Valley Fever Training Handout" and session(s) shall include the following:

- A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.
- Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.
- Training on methods that may help prevent Valley Fever infection.
- A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Though use of the equipment is not mandatory during work, the equipment shall be readily available and shall be provided to employees for use during work, if requested by an employee. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

Prior to the Notice to Proceed for decommissioning, the project operator shall repeat the above mitigation.

Additional Permits. The property owner, developer, and land use operator are all responsible to ascertain and comply with all laws, ordinances, regulations, and any other requirements of federal, state, county, and local agencies as are applicable to the development and operation of the approved land use and project site. These include:

- Federal - U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service
- State - California Department of Fish and Wildlife; Mojave Desert Air Quality Management District; California Department of Resources Recycling and Recovery (CalRecycle); Lahontan Regional Water Quality Control Board.
- County - Land Use Services Department Planning Division, Building and Safety Division, Code Enforcement Division, Land Development Division; San Bernardino County Fire Protection District, Department of Public Health, Environmental Health Services Division, and the Department of Public Works Solid Waste Management Division.

Decommissioning Requirements. In accordance with SBCC §84.29.060, Decommissioning Requirements, the developer shall submit a Closure Plan to the Planning Division for review and approval.

Dust Control – Operation. Prior to final inspection, the applicant shall develop an Operational Dust Control Plan that shall be approved and implemented prior to energizing the solar facility. The Operational Dust Control Plan shall include Dust Control Strategies sufficient to ensure that areas within the project site shall not generate visible fugitive dust (as defined in Mojave Desert Air Quality Management District’s [MDAQMD’s] Rule 403.2) such that dust remains visible in the atmosphere beyond the property boundary. During high wind events, Dust Control Strategies shall be implemented so as to minimize the project site’s contribution to visible fugitive dust beyond that observed at the upwind boundary. As a project design feature, the project will provide signage within 50 feet of each project site entrance providing the phone number to call to report a coming dust storm.

Clear Sight Triangle. Adequate visibility for vehicular and pedestrian traffic shall be provided at clear sight triangles at all 90-degree angle intersections of public rights-of way and private driveways. All signs, structures, and landscaping located within any clear sight triangle shall comply with the height and location requirements specified by County Development Code (SBCC §83.02.030) or as otherwise required by the Department of Public Works Traffic Division.

Continuous BMP Maintenance. The property owner/“developer” is required to provide periodic and continuous maintenance of all Best Management Practices (BMP) devices/facilities listed in the County approved Water Quality Management Plan (WQMP) for the project. This includes but is not limited to, filter material replacement and sediment removal, as required to assure peak performance of all BMPs. Furthermore, such maintenance activity will require compliance with all local, state, or federal laws and regulations, including those pertaining to confined space and waste disposal methods in effect at the time such maintenance occurs.

Continuous Maintenance. The project property owner shall continually maintain the property so that it is not dangerous to the health, safety, and general welfare of both on-site users (e.g. employees) and surrounding properties. The developer shall ensure that all facets of the development are regularly inspected, maintained and that any defects are timely repaired. The elements to be maintained include but are not limited to:

- Annual maintenance and repair inspections shall be conducted for all structures, fencing/walls, driveways, and signs to assure proper structural, electrical, and mechanical safety.
- Graffiti and debris shall be removed within 48 hours of notification.

- Dust control measures shall be maintained on any undeveloped areas where landscaping has not been provided.
- Erosion control measures shall be maintained to reduce water runoff, siltation, and promote slope stability.
- Signage - All on-site signs, including posted area signs (e.g. "No Trespassing") shall be maintained in a clean readable condition at all times and all graffiti and vandalism shall be removed and repaired on a regular basis. Signs on the site shall be of the size and general location as shown on the approved site plan or subsequent County Planning-approved sign plan.
- Fire Lanes - All markings required by the San Bernardino County Fire Protection District, including "No Parking" designations and "Fire Lane" designations shall be clearly defined and shall be maintained in good condition at all times.

Emergency/Contingency Plan. Prior to occupancy, the operator shall submit a Business Emergency/Contingency Plan for emergency release or threatened release of hazardous materials and wastes or a letter of exemption. For information, contact the Office of the Fire Marshal Hazardous Materials Division.

Erosion and Sediment Control Plan. Applicant shall submit an erosion and sediment control plan and permit application to Building and Safety for review and approval prior to any land disturbance.

Grading Plans. If grading exceeds fifty (50) cubic yards, plans are required to be submitted to and approved by the Building and Safety Division. Prior to issuance of a grading permit, a San Bernardino County Stormwater Management Plan is required.

Lighting. Any lighting shall be maintained so that all lights are operating properly for safety purposes and shall not project onto adjoining properties or roadways. Lighting shall adhere to San Bernardino County Desert and Mountain night light regulations.

Local Labor. The developer shall give preference to and employ County residents as much as practicable during construction and operation of the facility.

Noise. Noise level shall be maintained at or below County Standards, Development Code Section 83.01.080. For information, please call Department of Environmental Health Services.

NPDES Permit. A National Pollutant Discharge Elimination System (NPDES) permit – Notice of Intent (NOI) is required on all grading of one acre or more prior to issuance of a grading/construction permit. Contact the Regional Water Quality Control Board (RWQCB), Lahontan Region, for specifics.

Performance Standards. The approved land uses shall operate in compliance with the general performance standards listed in the SBCC Chapter 83.01, regarding air quality, electrical disturbance, fire hazards (storage of flammable or other hazardous materials), heat, noise, vibration, and the disposal of liquid waste. In addition to these, none of the following shall be perceptible without instruments at any point outside the project boundaries at adjoining property lines:

- Odors: No offensive or objectionable odor.
- Smoke: No smoke of a greater density than that described in No. 2 on the Ringelmann Chart, as published currently by the United States Bureau of Mines, shall be emitted from any project source.
- Radiation: No dangerous amount of radioactive emissions.
Toxic Gases: No emission of toxic, noxious or corrosive fumes of gases.
- Glare: No intense glare that is not effectively screened from view at any point outside the project boundary.

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

Road Standards. All roads must be an all-weather driving surface or an aggregate base compacted to 85 percent to hold 75,000 pounds. Roads must have a 45-foot outside turning radius. Access roads must be a maximum of 600 feet apart. Perimeter roads must be no less than 26 feet wide and interior roads no less than 20 feet wide.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

NEW INFORMATION OF SUBSTANTIAL IMPORTANCE, WHICH WAS NOT KNOWN AND COULD NOT HAVE BEEN KNOWN WITH THE EXERCISE OF REASONABLE DILIGENCE AT THE TIME OF THE PREVIOUS EIR, SHOWS THAT THE PROJECT WILL HAVE ONE OR MORE SIGNIFICANT EFFECTS NOT DISCUSSED IN THE PREVIOUS CEQA DOCUMENTS. The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

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

DETERMINATION:

On the basis of this initial evaluation

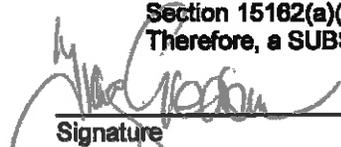
- No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND or MND or previously certified EIR adequately discusses the potential impacts of the project without modification

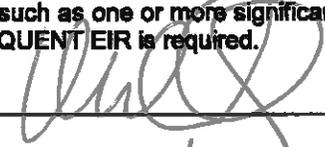
- X No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND, MND or previously certified EIR adequately discusses the potential impacts of the project; however, minor changes require the preparation of an ADDENDUM.

Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND, MND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are clearly reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT MND is required.

Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, only minor changes or additions or changes would be necessary to make the previous EIR adequate for the project in the changed situation. Therefore, a SUPPLEMENTAL EIR is required.

Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3) such as one or more significant effects not discussed in the previous EIR. Therefore, a SUBSEQUENT EIR is required.


Signature _____ Date 12/23/2014


Signature _____ Date _____

TRACY CROSSON, Sr. Planner / HEIDI DURBIN San Bernardino County
Printed Name and Title SUPERVISING PLANNER

1. EVALUATION OF ENVIRONMENTAL IMPACTS

In accordance with CEQA (Public Resources Code Section 21000 - 21177), this Initial Study has been prepared to analyze the proposed project by the identification of any potentially significant impacts upon the environment that would result from construction and implementation of the project. In accordance with Section 15063 of the CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of San Bernardino, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration or EIR would be required for the proposed VSL Solar project.

a. CEQA Document Tiering

The Public Resources Code and the CEQA Guidelines discuss the use of “tiering” environmental impact reports by lead agencies. Public Resources Code Section 21068.5 defines “tiering” as:

“The coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program or ordinance followed by narrower or site specific environmental impact reports which incorporate by reference the discussion in any prior environmental impact report and which concentrate on the environmental effects which: (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior environmental impact report.”

Tiering is a method to streamline EIR preparation by allowing a Lead Agency to focus on the issues that are ripe for decision and exclude from consideration issues already decided or not yet ready for decisions (CEQA Guidelines Sections 15152 and 15385). According to CEQA Guidelines Section 15152 (a), “tiering” is defined as:

“Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.”

According to CEQA Guidelines Section 15385: “Tiering is appropriate when the sequence of EIRs is (a) from a general plan, policy, or program EIR to a program, plan, or policy EIR of a lesser scope or to a site-specific EIR”

The concept of tiering anticipates a multi-tiered approach to preparing EIRs. The first-tier EIR covers general issues in a broader program-oriented analysis, including important program resource and mitigation commitments required to be implemented at the project-level. Subsequent tiers incorporate by reference the general discussions from the broader document, concentrating on the issues specific to the proposed action being evaluated (CEQA Guidelines Section 15152).

b. Scope of Subsequent Analysis

This Initial Study providing the basis for an Addendum has been prepared to evaluate the proposed changes to the VSL Phase 3 expansion area (adding a renewable solar electric power generation facility as an interim use). A Program EIR for the Victorville Sanitary Landfill for a 274-acre expansion of the landfill adjacent to the existing VSL 67-acre disposal site (State Clearinghouse Number 2002091132) was certified in 2004. The project site was analyzed as Phase 3 of the lateral expansion of the VSL. Included in the Phase 3 project description is the complete transformation of the terrain of the project site, with the excavation of native materials to create a pit of 200 feet in depth. This excavation will be followed with the gradual filling of the pit to create terrain substantially differing from that currently in place, with the final status of the landfill being a mound 200 feet higher than the current grade. The “scope” of the review for the project is to review its impacts based on a comparison between existing conditions and post-project conditions. This Initial Study also examines the project in light of any changes in circumstances, or new information and whether they result in new significant impacts not

previously analyzed in the prior certified EIR, or substantially increase the severity of impacts previously analyzed in the prior certified EIR.

c. Incorporation by Reference

This Initial Study incorporates by reference all or portions of the VSL FPEIR and the technical documents that relate to the proposed project or provide additional information concerning the environmental setting of the proposed project. The information disclosed in this Initial Study is based on the following technical studies and/or planning documents:

- *San Bernardino County General Plan 2007*

The County of San Bernardino General Plan, dated April 12, 2007, serves as a policy guide for determining the appropriate physical development and character of the County of San Bernardino (County). The General Plan is founded upon the community's vision for the County and expresses the community's long-term goals. Implementation of the General Plan would ensure that future development projects are consistent with the community's goals and that adequate urban services are available to meet the needs of new development.

The General Plan contains goals, policies, and plans which are intended to guide land use and development decisions. The General Plan consists of a Land Use Policy Map and the following six elements or chapters, which together fulfill the State requirements for a General Plan:

- Land Use;
- Housing;
- Circulation;
- Recreation and Resources;
- Safety and Noise; and
- Public Facilities/Growth Management.

Several supporting documents were produced during the development of the General Plan, including the San Bernardino County 2007 General Plan Program Final Environmental Impact Report. These documents provide substantial background information for the General Plan. The General Plan and supporting documentation were used throughout this Initial Study as sources of baseline and background data.

- *San Bernardino County Code - Title 8 - Development Code*

The Development Code, Title 8 of the County Code, implements the policies articulated in the General Plan and is the primary regulatory documents used to ensure land use compatibility. Both contain standards for development, such as minimum lot sizes, building setback and maximum height limitations, parking and landscaping requirements, and other standards designed to promote compatibility.

- *San Bernardino County Noise Ordinance*

The San Bernardino County Ordinance (Chapter 83.01 of the San Bernardino Development Code) regulates unnecessary, excessive and annoying sounds, including noise associated with construction and property maintenance. Section 83.01.080 of the Development Code identifies interior and exterior noise limits that apply to all residential property within the unincorporated areas.

- *Renewable Energy Generation Ordinance*

Chapter 84.29 (Renewable Energy Generation) and Chapter 810.01 (Definitions) of the County Development Code regulate new commercial solar energy generation facilities. Section 84.29.040 of the Development Code identifies solar energy development standards for property within the County.

- *VSL FPEIR 2004 (and certifying resolutions and findings)*

In 2004, the County of San Bernardino completed a Final Program Environmental Impact Report (FPEIR), which was prepared in support of the Lateral Expansion, of the Victorville Sanitary Landfill (VSL) for a 274-acre expansion of the landfill adjacent to the existing VSL 67-acre disposal site (State Clearinghouse Number 2002091132). A Notice of Determination (NOD) was filed with the Clerk of the County Board of Supervisors on June 16, 2004, which consisted of a proposed 274-acre lined expansion (aka VSL Expansion Area) adjacent to the existing VSL 67-acre disposal site. The FPEIR addresses the following environmental effects of the Victorville Sanitary Landfill (which includes the project site):

- Aesthetics and Visual Resources;
- Agricultural Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology/Soils and Mineral Resources;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Transportation/Traffic; and
- Utilities/Service Systems.

The FPEIR addresses the issues referenced above and identifies potentially significant environmental impacts, including site-specific and cumulative effects of the project in accordance with the provisions set forth in the CEQA and the CEQA Guidelines. In addition, the FPEIR recommends feasible mitigation measures, where possible, that would reduce or eliminate adverse environmental effects of the Victorville Sanitary Landfill.

- *Addenda to FPEIR*

The documents listed in Section 1, *Environmental Background*, are incorporated by reference.

- *Technical studies, personal communications and web sites listed in Section 4, Reference.*

The foregoing documents are available for review at the County of San Bernardino: 385 N. Arrowhead Avenue, First Floor, San Bernardino, CA 92415-0187

d. Terminology Used in the Checklist

This Initial Study reviews the proposed project's potential environmental impacts against the previously approved VSL project described in the certified VSL FPEIR to determine if impacts were adequately analyzed and mitigated. The following terminology is used in determining the project-related impacts:

- 1) A finding of "No New Impact/No Impact" means that the potential impact was fully analyzed and/or mitigated in the prior CEQA document and no new or different impacts will result from the proposed activity. A brief explanation is required for all answers except "No New Impact/No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No New Impact/No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to

projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No New Impact/No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

- 2) A finding of "New Mitigation is Required" means that the project has a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the impact.
- 3) A finding of "New Potentially Significant Impact" means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document that cannot be mitigated to below a level of significance or be avoided.
- 4) A finding of "Reduced Impact" means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.
- 5) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 6) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. Describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed action.
 - c) Infeasible Mitigation Measures. Since the previous EIR was certified or previous ND or MND was adopted, discuss any mitigation measures or alternatives previously found infeasible that would in fact be feasible or that are considerably different from those previously analyzed and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives.
 - d) Changes in Circumstances. Since the previous EIR was certified or previous ND or MND was adopted, discuss any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a change in conclusion regarding one or more effects discussed in the original document.
- 7) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 8) Supporting Information Sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

ENVIRONMENTAL CHECKLIST QUESTIONS

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

Explanation of Checklist Responses

Would the project:

a) Have a substantial adverse effect on a scenic vista?

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

According the FPEIR, Impact AE-1, the lateral and vertical expansion of the landfill over a period of 76 years would incrementally create a large soil covered mound in a relatively open desert setting. The size and character of the facility may interrupt views of the desert and Quartzite Mountain from the County-designated scenic highway (I-15). This impact was considered potentially significant.

The site is adjacent to public lands administered by the Bureau of Land Management (BLM) associated with the Quartzite Mountains to the northeast. The I-15 Freeway is designated as a Scenic Route in the County's General Plan, with views across the valley floor toward the Quartzite Mountains to the north and east and Bell Mountain to the southeast. General Plan Policy OS 5.2 defines a scenic corridor on either side of the designated route, measured from the outside edge of the right-of-way, trail, or path. This includes the area outside a highway right-of-way that is generally visible to persons traveling on the highway. The existing facility is clearly visible in the public views of the surrounding desert and mountains in the background. Views also take in the manmade features that make up the existing landscape such as the limestone quarry east of the freeway, the electricity transmission lines, numerous

off highway vehicle trails, and the landfill. These are the most prominent features on the landscape and are all visible from the County-designated scenic highway, and degrade the desert views that were once available, uninterrupted.

As phases of the landfill are completed, each phase would be closed and capped with a final cover and revegetation of that phase would commence. Revegetation would be done by hydroseeding a desert native mix across the finished slopes. Revegetation of the site would allow the mound to be less obtrusive by blending the light color of the native soil with other more subtle colors associated with desert native plants. The intent of the revegetation plan is two-fold; first, revegetation would provide stabilization of slopes and second, it would allow the site to begin to blend in with the surrounding desert landscape. The existing landfill is a prominent feature in the Sidewinder Valley. Views from various vantage points around the valley show it as a light colored mound on a variegated landscape. From many vantage points it is a feature in the background or middle ground of a view, sometimes noticeable other times obscuring views of the mountains and other parts of the valley depending on the location of the viewer in relation to the landfill along the freeway. At close range along the I-15 scenic corridor, the landfill can obstruct some views of the valley and mountains. As the landfill is expanded, views of the valley and mountains would slowly be ultimately to a foreground view.

The FPEIR concluded that development of the landfill would be a significant adverse impact on aesthetics and the existing visual character of the area due to its proximity to the I-15 scenic corridor and the ultimate massing of the facility.

FPEIR Level of Significance Before Mitigation

Significant and unavoidable.

FPEIR Mitigation Measures

AE-1: A revegetation/landscape plan shall be prepared for the Victorville Sanitary Landfill by a qualified landscape architect or botanist with experience in revegetation of disturbed sites using native vegetation. This plan shall be completed within one year after approval of the project and shall be designed for implementation of a comprehensive landscape plan that will provide an effective vegetative cover over the long-term where slopes are at final stages of development. The Plan shall include a description of slope maintenance procedures that will be followed to ensure success.

FPEIR Level of Significance After Implementation of Mitigation Measures

Revegetating final landfill slopes would allow the landfill to blend in with the surrounding landscape for color and texture. However, it would not lessen the overall mass created by the VSL expansion project. Therefore, impacts to aesthetics and visual quality would remain significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

No New Impact –The existing VSL facility and solar project site are clearly visible in the public views of the surrounding desert and mountains in the background. Views also take in the manmade features that make up the existing landscape. A large limestone quarry is located east of I-15, south of the solar project site, and is noticeable from many of the same vantage points of the landfill within the valley's viewshed. The extremely light colored limestone and large disturbed surface area are noticeable from great distances within the valley, as is the light colored mound of landfill's stockpile. I-15 splits the valley floor as a four-lane roadway and significantly adds to the disturbed nature of Sidewinder Valley. In addition, several unpaved roads associated with off-highway vehicle (OHV) use are visible within the valley creating additional disturbed features. The area also contains power transmission lines and a private railroad line. The surrounding area that is privately held is developed with a few commercial and

industrial uses, including a private airstrip, located near the Stoddard Wells Road intersection with the landfill's access road, approximately 1,500 feet from the site.

Although not developed with structures, two groundwater monitoring wells and two soil-pore gas monitoring stations, associated with the monitoring of the adjoining phases of the VSL, are located on the Phase 2 property. A portion of the site is also disturbed with OHV roads. There are no natural rock outcroppings onsite. Vegetation onsite is low and scrubby and would not be considered a scenic resource. The proposed project replaces the ruderal vegetation on 57.6 acres of the Phase 3 expansion area with a solar field containing low-lying panels, generally 8 to 12 feet in height. This would be below the height of a typical single-story structure and would not obstruct any long-distance views in the area.

The FPEIR included view simulations of the VSL for the various development phases. Figures 7 and 8 represent views of the landfill from I-15 Frontage Road and its intersection with Quarry Road looking northeast across the I-15 freeway. The vantage point is located south of the I-15, looking northeast toward the landfill. (See Figure 9, *Photo Location Map*, for vantage point location).

The first image in Figure 7, VSL Phase 1 and Simulated Phase 2 (VSL FPEIR 4.1-3) is a simulation of the first phase of the landfill expansion. The second image shows a simulation of the landfill at buildout of Phases 1 and 2, as well as the excavation and liner construction for Phase 3.

The first image in Figure 8, VSL Simulated Buildout (FPEIR Figure 4.1-4) repeats the simulation of the buildout of Phases 1 and 2 and the excavation and liner construction for Phase 3 (shown as the lower image in Figure 7). The second image shows a simulation of the landfill at buildout of all phases. This includes final cover of the landfill and revegetation of the landfill site.

Based on the view simulations in Figures 7 and 8, the FPEIR concluded that the overall mass created by the VSL expansion project was significant and unavoidable.

Figure 10 is a recent photograph of the project site taken from approximately the same location on Quarry Road as Figures 7 and 8, looking northeast toward the landfill. However, the photograph is taken from a vantage point north of I-15, rather than south of the I-15, which places the viewer closer to the project site. This is a more conservative representation of the views that would be experienced by motorists traveling northbound on I-15. (See Figure 9, *Photo Location Map*, for vantage point location). Figure 11 is a view simulation of the solar project taken from the same vantage point.

Figure 12 is a photograph of the project site taken south of Stoddard Wells Road, looking southwest toward the project site. (See Figure 9, *Photo Location Map*, for vantage point location). This vantage point represents the views motorists traveling southbound on I-15 would experience once past the Stoddard Wells Road offramp, or when traveling southwest on Stoddard Wells Road. Figure 13 is a view simulation of the solar project from the same vantage point.

The solar project would be most visible from vehicles traveling along I-15. As shown in Figure 13 the solar field would be mostly blocked from view from vehicles traveling northbound on I-15 by existing topography and the landfill until they reach the Stoddard Wells Road exit. As shown in Figure 11, the solar field would be visible to vehicles southbound on I-15. The solar field would not be visible from the nearest residential uses, which are over two miles away, east of I-15, behind the limestone quarry.

The view simulations for the solar project demonstrate that compared to existing conditions, views of the valley floor would be altered by the solar field, but the views of Quartzite Mountains would be uninterrupted. The desert floor would remain visible beyond the solar field, as shown in Figures 11 and 13. When compared to the impacts of buildout of the Phase 3 expansion area, which block 50 percent of the views of the Quartzite Mountains and the entire desert floor beyond the landfill, the visual impact of the solar project is less than significant.



Proposed Conditions: View of future Phases 1A and 1B fill shown concurrently with Phase 2 excavation.



Proposed Conditions: View of future Phases 1A, 1B and 2 fill shown concurrently with Phase 3 excavation.

Figure 7: VSL Phase 1 and Simulated Phase 2



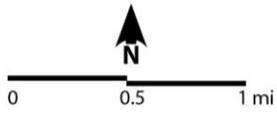
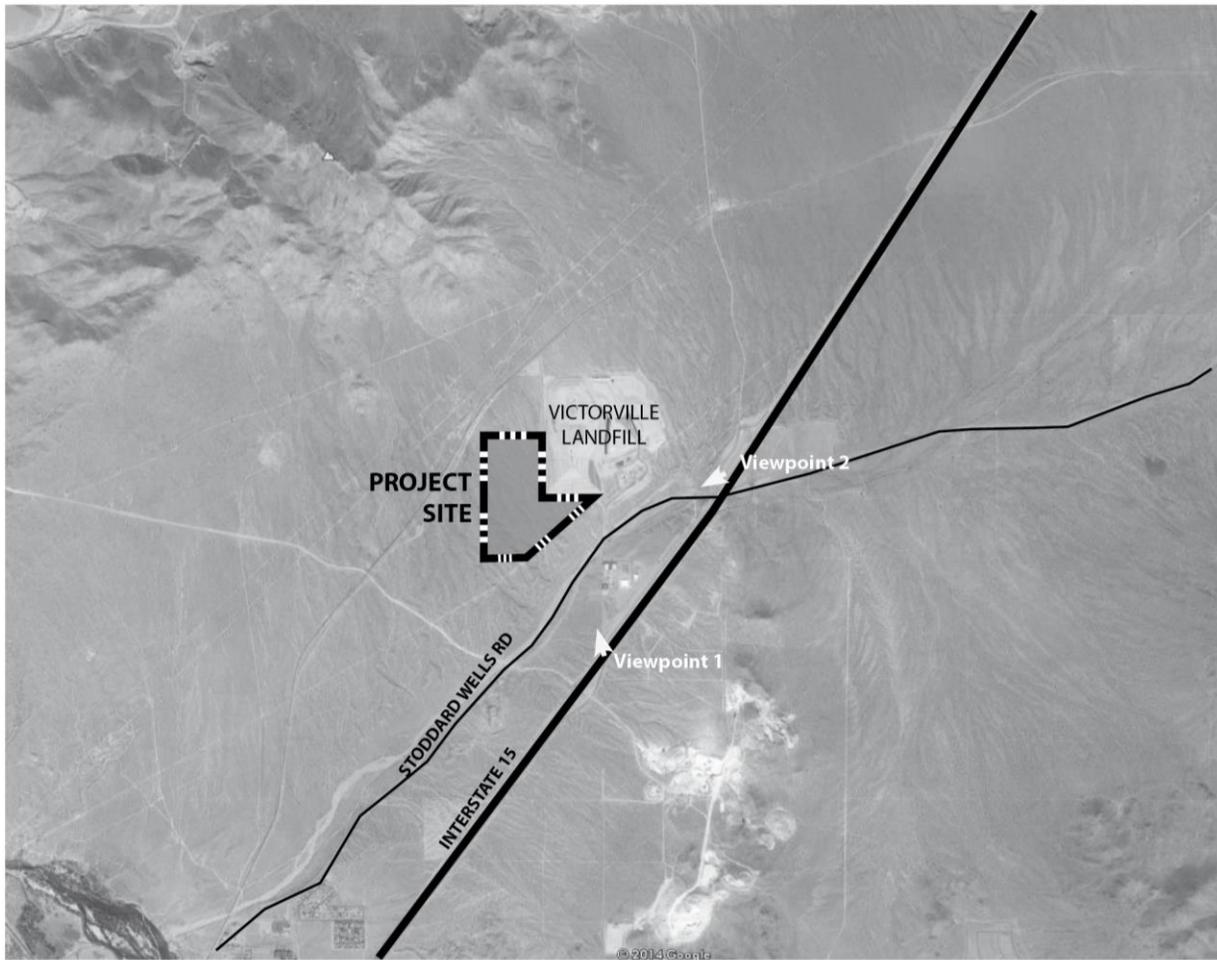
Proposed Conditions: View of future Phases 1A, 1B and 2 fill shown concurrently with Phase 3 excavation.



Proposed Conditions: View of future Phases 1A, 1B, 2 and 3 fill at final grade.

Figure 8: VSL Simulated Buildout

Figure 9: Site Photo Location



- LEGEND**
-  Observation Point
 -  Project Boundary
 -  Major Paved Roadways

Figure 10



Figure 11



Figure 12



Figure 13



The proposed solar project would be visually compatible with the existing institutional uses in the project vicinity, such as the landfill, limestone quarry, electricity transmission lines, and industrial uses. As described in Section IX, Land Use, the project site is designated IN (Institutional) in San Bernardino County Development Code Section 82.04.040, "electrical power generation" and "utility facilities" are conditionally permitted within the IN zone. Additionally, Section 84.29.020, part of the Renewable Energy Generation Facilities portion of the Code, specifies that solar power generation facilities are conditionally permitted within the IN zone. Although the areas to the northeast and northwest of the solar site feature views of the desert and mountains in the background, when the solar field is viewed against the background of the immediately surrounding manmade features, I-15, industrial buildings, and adjacent landfill operations, the proposed solar project would not substantially degrade the character of the site.

FPEIR analyzed the complete transformation of the terrain of the project site, with the excavation of native materials to create a pit of 200 feet in depth. This excavation will be followed with the gradual filling of the pit to create terrain substantially differing from that currently in place, with the final status of the landfill being a mound 200 feet higher than the current grade. The proposed project, located within 57 acres of the 90-acre Phase 3 expansion area and within the same boundaries, would result in a similar type of impact but to a vastly greater degree. The proposed solar field is an interim use that would eventually be removed and replaced with an approximately 200-foot high mound as part of VSL Phase 3 expansion.

Since there are no identified scenic vistas in the area, and the low height of the project would not obstruct views of hills and mountains in the distance, the proposed solar project would have a less than significant effect on scenic vistas. The overall development would not increase impacts to scenic vistas or degrade the visual character of the site or its surroundings in comparison to the project analyzed in the FPEIR. The VSL FPEIR found Phase 3 expansion area impacts to scenic resources to be significant. Impacts were adequately addressed in the FPEIR. The overall aesthetic impact of the interim solar project would be similar to, or less than, the impact of the project approved by the FPEIR. Therefore, no new significant impacts damaging scenic resources or substantially degrading the existing visual character of the site and its surroundings would occur as a result of the proposed project.

b) Substantially damage scenic resources, including, trees, rock outcroppings, and historic buildings within a state scenic highway?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

See discussion in Section I.a above. The I-15 Freeway is designated as a Scenic Route in the County's General Plan. The proposed project would not damage trees, rock outcroppings, and historic buildings within a state scenic highway (FPEIR Section 4.1, Aesthetics and Visual Quality).

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

As discussed the in FPEIR, there are no designated state scenic highways in the vicinity of the project site. The I-15 Freeway is designated as a Scenic Route in the County's General Plan. Impacts to scenic corridors are discussed in section 1a and 1c above. The impacts of the proposed solar project would be similar to those analyzed in the FPEIR. The existing VSL facility is clearly visible in the public views of the surrounding desert and mountains in the background. The overall development would not increase impacts to state scenic highways or degrade the visual character of the site or its surroundings in comparison to the project analyzed in the FPEIR. Therefore, there would be no new significant impacts related to damaging scenic resources within a state scenic highway and the proposed project is consistent with, and does not require any changes to, the FPEIR. The overall aesthetic impact of the interim solar project would be similar to, or less than, the impact of the project approved by the FPEIR.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The Initial Study prepared for the FPEIR determined that the landfill expansion would not create a new source of light or glare since no habitable structures are proposed, and no new nighttime activities are anticipated to occur. (FPEIR Section 2.7.2, Effects Found Not To Be Significant). FPEIR further determined that the proposed expansion of the Victorville Landfill would not create new sources of light and glare. Operation of the landfill is a daytime activity and nighttime activities are limited to maintenance of the landfill after it has closed for the day. Maintenance activities would generally be done during daylight hours after the landfill is closed for the day, except during winter months when daylight ends around the time the landfill is closing. When maintenance activities do require lighting the lights would be portable and would only be used at such time as maintenance activities are actually occurring. Therefore, these activities would not be obtrusive to nearby land uses or obscure the night sky. (FPEIR Section 4.1, Aesthetics and Visual Quality)

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The project uses dark photovoltaic solar cells, which would track the sun to maximize solar exposure to the panels.

Lighting

Impacts resulting from lighting would be minimized through compliance with all development standards, Zoning Ordinance standards, and the goals, policies, and implementation measures of the General Plan. San Bernardino County Ordinance No. 3900 regulates glare, outdoor lighting, and night sky protection. Nighttime lighting associated with the proposed solar project, if any, would be subject to County approval and compliance with San Bernardino County requirements. Lighting would be directed toward the ground from low elevation poles (less than 14 feet in height). All lights would be shielded so that there is no upward directed light. As a result, the solar project would not be anticipated to create a substantial new source of lighting during the construction period.

During operations, the solar project would introduce minor new sources of light in the form of small domestic fixtures at inverters, switchgear, and other equipment, to the extent such lighting is required by the CBC. As a project design feature, all such lighting would be directed downward and shielded to avoid spillage onto neighboring properties. Such lighting would be less noticeable than the lighting typical of nearby commercial developments, and no significant light impacts are anticipated.

Because the solar project is not anticipated to require lighting during construction, and lighting used during operations would be limited to that required by the CBC, directed downward, and shielded to avoid spillage, the project would not have substantial adverse impacts related to lighting; impacts would be less than significant.

Glare

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

During operations, the reflection of sunlight would be the primary potential producer of glare off the glass surfaces of the solar panels in the proposed project. The proposed solar array would consist of flat-plate PV panels, which incorporate anti-reflective and/or diffusion coating technologies that reduce fugitive glare and increase the efficiency of the solar facility. The PV panels would not be expected to cause significant glare because PV panels are designed to absorb as much sunlight as possible and therefore would have minimal reflectivity. A solar panel comprises numerous solar cells. A solar cell differs from a typical reflective surface in that it has a microscopically irregular surface designed to trap the rays of sunlight for the purposes of energy production. The intent of solar technology is to increase efficiency by absorbing as much light as possible (which in turn minimizes reflection and glare).

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

The panels would not be expected to cause extreme visual discomfort or impairment of vision for motorists because the panels are designed to absorb as much sunlight as possible and therefore would have minimal reflectivity. The type of glare that could be expected in the most extreme conditions, when the sun is low in the sky, is a level of veiling reflection that may cause viewers to be less able to distinguish levels of contrast, but not cause a temporary loss of vision. Potential glare from solar panels can be reduced substantially through the use of anti-reflective/diffusion surfaces, which is now a common feature of current panels. The proposed panels will have this feature and as such is included as a project design feature. Therefore, the proposed solar project would result in less-than-significant impacts related to glare for those working and driving in the project vicinity.

The Osborne airstrip, a private use airstrip running parallel to I-15, is located south of Stoddard Wells Road. The runway would be located 0.35 miles southeast of the proposed solar field. For the same reasons described above relative to the potential glare causing less than significant impacts to motorists, glare would also have limited impact on pilots. Further, glare impacts from the solar field would not affect aircraft pilots using the airstrip's runways because the runway is oriented northeast to southwest which would not place the landing pattern directly facing the project site. Pilots landing in a southwesterly direction would also be screened from the project site by the existing landfill hill.

Glare impacts were identified as less than significant in the VSL Initial Study and FPEIR. With the application of the project design features described above, impacts related to glare would remain less than significant after project implementation. Therefore, overall light and glare impact of the interim solar project would be similar to the impact of the project approved by the FPEIR.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

PDFs

PDF-AES1: The project will use panels that have anti-reflective/diffusion surfaces.

PPPs

No PPPs are applicable to aesthetics.

Mitigation Measures:

No new mitigation measures are necessary because no significant aesthetics, lighting, or glare impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
II. AGRICULTURE & FOREST RESOURCES				

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|---|--------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |

Explanation of Checklist Responses

Would the project:

- a) ***Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The Initial Study prepared for the project determined that the site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The site does not conflict with existing agricultural zoning areas, or any area designated as Williamson Act lands. Since the landfill area is not currently designated for agricultural uses, the project's development will not result in an overall loss to any agricultural lands in the area. (FPEIR Section 2.72, Effects Found Not To Be Significant)

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is vacant and is part of the proposed future VSL Phase 3 expansion area. The project proposes to build a photovoltaic solar energy plant on 57.6 acres, within the 90-acre Phase 3 portion of the landfill. The overall VSL site is not designated for agricultural uses and will not result in an overall loss of any agricultural, forest or timberland lands. The current General Plan land use designation for the proposed project area is IN (Institutional), which allows the development of a renewable energy generation facility with a Conditional Use Permit. The project site does not contain forest land and is not zoned for forest land or timberland [Development Code Section 85.06] (FPEIR Section 2.72, Effects Found Not To Be Significant).

With implementation of the proposed solar project as an interim use, there would continue to be no agricultural or forest impacts related to the expansion of VSL. Therefore, the proposed solar project is consistent with and does not require any changes to the FPEIR.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to agricultural resources.

Mitigation Measures

No mitigation measures are necessary because no significant impacts to agricultural or forest resources have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
III. AIR QUALITY				
Would the project:				
a) Conflict with or obstruct implementation of the applicable quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?**

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The VSL expansion project was found to be consistent with Mojave Desert Air Quality District management plans .

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Giroux & Associates prepared an Air Quality Impact Analysis (AQIA) for the project in September 2014. The AQIA evaluates emissions from construction and operations, focusing on criteria air pollutants,

hazardous emissions, and greenhouse gases (GHG). The full report, with baseline emissions data, analysis methodologies and emissions modeling output, is included as Appendix A.

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

From 2008 to 2012, the O₃ standards were exceeded up to 59 days per year at the Victorville monitoring station, while PM-10 standards were exceeded on a maximum of two days per year. PM-2.5 thresholds have not been exceeded in recent years, but the region formally remains in non-attainment for this pollutant. The Mojave Desert Planning Area PM-10 Attainment Plan and MDAQMD 2004 Ozone Attainment Plans provide programs for obtaining attainment status for those monitored air pollution standards. They base existing and future air pollution emissions on employment and residential growth projections, as derived from local and regional General Plans and other projections. While the proposed project is not identified specifically in the General Plan, it would not generate new homes or significant employment opportunities that will change the County’s projections. Mojave Desert Planning Area PM10 Attainment Plan and MDAQMD 2004 Ozone Attainment Plan.

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

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

Given that the proposed project would not alter the population or employment projections considered during the development of the Mojave Desert Planning Area PM-10 Attainment Plan and MDAQMD 2004 Ozone Attainment Plan and considering the minor emissions attributable to the proposed project during operation (refer to discussion in Item III.b below), impacts associated with applicable air quality plan consistency would be less than significant.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR analyzed the potential regional and local ambient air quality impacts of the continuation and expansion of the landfill operations. Emissions were estimated for the following proposed phases then compared to the existing operations to determine if significant increases to air pollutant levels may occur:

Scenario 1: Phase 2 Excavation and Phase 1 Landfilling (years 11 through 35) – Landfill operations at an average of 1,100 tons per day (tpd) on Phase 1 and staged excavation of the 117-acre Phase 2 expansion area to a depth of 80 feet during this span with material used for cover on Phases 1 and 2;

Scenario 2: Phase 2 Excavation and Landfilling (years 36 through 50) – Landfill operations at an average 1,600 tpd and ongoing staged excavation of Phase 2. Excavation material would be used for daily cover and final cover for Phases 1 and 2; and

Scenario 3: Phase 2 Landfilling and Phase 3 Landfilling and Excavation (years 51 through 76) - Landfill operations would occur up to an average of 3,000 tpd and completion of excavations of Phases 2 and 3 area would also occur. Material excavated during Phase 3 would be used for daily cover and final landfill closure. A substantial increase in construction equipment is planned to excavate Phase 3 area as Phase 3 represents maximum activities at the landfill with both landfill and extensive excavations planned.

The FPEIR determined the VSL expansion would result in the following impacts:

Impact AQ-2: The daily excavations, landfill operations and truck and equipment travel on-site would produce a net increase of fugitive PM-10. Compliance with MDAQMD rules will reduce impacts by controlling emissions but not below established thresholds.

Impact AQ-3: Engine exhaust emissions from excavation and landfill equipment and commercial haulers would contribute to a net increase of criteria pollutants including NO_x, CO, and ROG during Phase 3.

Impact AQ-4: Engine exhaust and dust emissions from mass excavation planned for Phase 3 would contribute to a short-term increase of criteria pollutants that would exceed significance thresholds.

Impact AQ-5: Engine exhaust and dust emissions from liner construction planned every three to five years may contribute to a short-term increase of criteria pollutants that could exceed significance thresholds.

FPEIR Level of Significance Before Mitigation

Impact AQ-2: Estimated increases in PM-10 emissions for Phase 1 are *less than significant*. Estimated increases for Phases 2 and 3 are considered *potentially significant*.

Impact AQ-3: *Potentially Significant*: Engine exhaust emissions produced by the operation of diesel fueled construction-type equipment such as bulldozers, scrapers, and graders exceed CEQA thresholds during Phase 3 operations around 2065.

Impact AQ-4: *Potentially significant*: The planned mass excavation for Phase 3 areas would produce PM-10 and NO_x that exceed the significance thresholds levels based on current and forecast emission factors.

Impact AQ-5: *Less than significant*: Engine exhaust and dust emissions are produced by the operation of diesel fueled construction type equipment. These emissions would not exceed CEQA thresholds during the temporary construction of the liners and are not considered significant.

FPEIR Mitigation Measures

AQ-2: If feasible, a co-generation system should be constructed to utilize the LFG and conserve energy resources. The economic feasibility and environmental benefits of the utilization of LFG for the operation of a co-generation system shall be conducted at such time the system is proposed.

AQ-3: Unpaved refuse haul roads, service roads and operations areas shall be treated with water at least once per every two hours of active operation, and/or treated with a chemical stabilizer in sufficient quantity and frequency to maintain a stabilized surface.

AQ-4: Truck and mobile equipment speeds on interior haul roads shall not exceed 15 miles per hour. Speed limits shall be posted.

- AQ-5: Excavation areas shall be treated with water during active extraction phases. As excavation areas are completed, landfill development (liner construction) and landscaping shall be implemented over landfill final and interim slopes.
- AQ-6: Additional permanent landfill roads from public streets to the scalehouse shall be paved to reduce the use of unpaved roads (existing access road is paved).
- AQ-7: Sweeping of paved roads shall be performed on heavily-used on-site paved roads and within 500 feet of the access road for the landfill as necessary to control on-site and track-out dust.
- AQ-8: Prior to excavating Phases 2 and 3, SWMD shall prepare a Dust Control Plan that describes all applicable dust control measures that will be implemented as required under MDAQMD Rule 403.2.

In addition, Mitigation Measure GEO-2 requires areas not active for 180 days to be hydroseeded to reduce wind erosion.

FPEIR Level of Significance After Mitigation

- Impact AQ-2: Estimated increases in PM₁₀ emissions for Phase 1 are *less than significant*. Estimated increases for Phases 2 and 3 are considered *significant and unavoidable*.
- Impact AQ-3: Based on current and near future emission factors for diesel equipment, exhaust emissions would exceed thresholds in Phase 3 (around 2065). This is considered a *significant and unavoidable* air quality impact. However, with implementation of future controls and emission standards that would be updated with time, it is possible that emissions would be less than thresholds. Emissions should be re-evaluated prior to Phase 3 due to the long time frame and changes likely to occur in standards and equipment emissions.
- Impact AQ-4: Exhaust and dust emissions would still exceed CEQA thresholds during Phase 3 operations around 2065. This is a *significant and unavoidable* impact.
- Impact AQ-5: Engine exhaust and dust emissions produced by the operation of diesel fueled construction type equipment would not exceed CEQA thresholds during the temporary construction of the liners and are considered *less than significant*. Mitigation measures AQ-3 through AQ-10 would be applicable to the liner construction activities with respect to dust control and maintaining and updating equipment.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

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

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

Carbon Monoxide (CO)	548 pounds/day100 tons/year
Nitrogen Oxides (NO _x)	137 pounds/day25 tons/year
Sulfur Oxides (SO _x)	137 pounds/day25 tons/year
Reactive Organic Gases (ROG)	137 pounds/day25 tons/year

Particulate Matter (PM-10)	82 pounds/day 15 tons/year
Particulate Matter (PM-2.5)	82 pounds/day 15 tons/year

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

Phase 1: Site Preparation and Grading, 40-Day Duration

- 2 Dozer
- 2 Loaders/backhoes
- 2 Graders
- 4 Scrapers
- 1 Water truck
- 30 Construction worker vehicles
- 281 gravel dump trucks at 20 miles round trip
- 30 truck deliveries per day (20 miles round trip)

Phase 2: Equipment Installation and Distribution Lines, 80-Day Duration

- 3 Trenchers
- 3 Welders
- 2 Rough Terrain Forklifts
- 1 Generator Set
- 2 Loaders/Backhoes
- 75 Construction worker vehicles
- 50 Truck deliveries per day (50 miles round trip)
- 60 Truck deliveries per day (200 miles round trip from Southern California ports) – solar panels
- 60 concrete trucks at 20 miles round trip

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

Earth moving activities resulting in substantial dust raise concerns over Valley Fever. Valley Fever is primarily a disease of the lungs caused by the spores of the *Coccidioides immitis* fungus. The spores are found in soils, become airborne when the soil is disturbed, and are subsequently inhaled into the lungs. Valley Fever is not contagious, and therefore, cannot be passed on from person to person. Most of those who are infected will recover without treatment within six months and will have a life-long immunity to the fungal spores. In most cases, the body's immune response is effective and no specific course of treatment is necessary. Earth moving activities associated with the development of the solar project will not result in substantial dust with implementation of existing MDAQMD regulations. Given the heavy use of the VSL site, including daily earth moving activities associated with the operation of the land fill, the lack of any reported case of Valley Fever at the site, and the low rate of incidence in San Bernardino County as a whole, it is unlikely that project construction could result in any impacts. Consistent with MDAQMD Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*, the proposed solar project must implement dust control measures and will provide educational materials to

prevent Valley Fever. Project Design Features (PDFs) and existing Policies, Plans, and Procedures (PPPs) would further ensure that emissions from increased vehicle trips would have less-than-significant air quality impacts. PDF- AQ1 requires all perimeter fencing to be wind fencing and PDF-AQ2, requires the project to erect signage within 50 feet of each project site entrance providing the phone number to call to report a coming dust storm. PPP-AQ1 PPP-AQ3, and PPP-AQ4, describe standard County requirements imposed on conditional use permits to minimize dust. PDFs and existing PPPs would further ensure that emissions from increased vehicle trips would have less-than-significant air quality impacts.

On both a daily and an annual basis, none of the criteria pollutants would exceed the MDAQMD thresholds (with or without the recommended mitigation). **Tables 2** and **3**, below, provide detailed calculations.

Table 2
2015 Construction Activity Maximum Daily Emissions (pounds/day)

Activity	ROG	NOx	CO	SO ₂	PM-10	PM-2.5	CO ₂
Grading and Installation							
Unmitigated	11.7	134.0	90.1	0.1	26.1	13.2	11,255.9
w/Fugitive Dust Mitigation	11.7	134.0	90.1	0.1	14.3	8.7	11,255.9
MDAQMD Thresholds	137	137	548	137	82	82	-
Significant?	No	No	No	No	No	No	No

Source: Giroux & Associates, 2014

Table 3
2015 Construction Activity Annual Emissions (tons/year)

Activity	ROG	NOx	CO	SO ₂	PM-10	PM-2.5	CO ₂
Grading and Installation							
Unmitigated	0.46	4.09	3.18	0.00	0.69	0.38	376.08
w/Fugitive Dust Mitigation*	0.46	4.09	3.18	0.00	0.44	0.29	376.08
MDAQMD Thresholds	25	25	100	25	15	15	-
Significant?	No	No	No	No	No	No	No

Source: Giroux & Associates, 2014

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

The AQIA used those factors and commuting distances to calculate operational emissions for cleaning and security. EMFAC2011, the California Air Resources Board tool for estimating emissions from on-road vehicles, was used to calculate vehicular emissions associated with cleaning and security travel. EMFAC2011 emissions calculations were made for a 50 mile round trip distance for a light/heavy duty truck (Category LHD2) for year 2015. Daily operational emissions and associated thresholds and are shown in Table 4. Table 5, below, depicts annual operational activity emissions. The tables show that operational emissions are negligible. All criteria pollutants would be less than one percent of their respective MDAQMD daily and annual thresholds and are less than significant. No mitigation is necessary for operational air emissions.

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

**Table 4
Operational Activity Emissions (lbs/day)**

Activity	ROG	NOx	CO	SO₂	PM-10	PM-2.5
Cleaning and Security	0.01	0.07	0.24	0.00	0.00	0.00
MDAQMD Thresholds	137	137	548	137	82	82
Significant?	No	No	No	No	No	No

**Table 5
Operational Activity Emissions (tons/year)**

Activity	ROG	NOx	CO	SO₂	PM-10	PM-2.5
Cleaning and Security	0.002	0.013	0.044	0.000	0.000	0.000
MDAQMD Thresholds	25	25	100	25	15	15
Significant?	No	No	No	No	No	No

- 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?**

No New Impact –

SUMMARY OF FPEIR ANALYSIS

See discussion in Section III.a and III.b above. The Victor Valley area is designated “non-attainment” for State and federal ambient air quality standards (AAQS) for O₃ and inhalable particulate matter PM-10. The MDAQMD is one of three districts in California classified for nonattainment of hydrogen sulfide (H₂S). This pollutant is not commonly found in the ambient atmosphere but can originate from natural sources such as volcanoes, sulfur hot springs, or in the case of the Mojave Desert, related to the mineral brine associated with the dry lakebed at Trona, approximately 45 miles northeast of the project site. The state ambient air quality standard for H₂S is not health-based but rather an aesthetic one,

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because the compound smells like rotten eggs. However, due to the distance from the source, this is not an issue in the Victor Valley. Furthermore, the proposed project would not contribute additional H₂S to the atmosphere.

According to the FPEIR Impact AQ-1, landfill gas fugitive emissions and flare combustion emissions would contribute to a net increase of criteria and toxic air pollutants. The landfill gas (LFG) collection and monitoring system with its flare system, would need to comply with its permit and monitor LFG emissions, and operations must comply with dust control requirements.

FPEIR Level of Significance Before Mitigation

Impact AQ-1: *Less than significant.* Health impacts related to the potential to emit toxic air pollutants are considered less than significant with ongoing compliance with MDAQMD regulations. If feasible, a co-generation system should be constructed to utilize the LFG and conserve energy resources. The economic feasibility and environmental benefits of the utilization of LFG for the operation of a co-generation system shall be conducted at such time the system is proposed.

FPEIR Mitigation Measures

AQ-1: If or when emissions of CO or the other criteria pollutants approach significant levels, additional control measures shall be implemented in consultation with the MDAQMD and in compliance with current regulations at that time.

FPEIR Level of Significance After Mitigation

Approval of the project's design features and compliance with MDAQMD requirements and permits will assure that the level of impact will be less than significant with respect to LFG levels. Source test monitoring of the flare is required annually to monitor combustion emissions.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). As previously discussed in Items III.a and III.b, the project's contribution to criteria pollutants during the temporary construction period would be localized and mitigated to below a level of significance. As also indicated, operational activities would generate insubstantial quantities of air pollutants that are not deemed cumulatively considerable. Since no other sources of potential long-term air emissions would result, impacts would be less than significant. Estimated increases in PM-10 emissions for Phases 2 and 3 were considered significant and unavoidable by the PFEIR.

Development of the proposed solar project would reduce, not increase impacts, in comparison to the project analyzed in the FPEIR. The FPEIR found the VSL expansion would result in cumulatively considerable net increase of criteria pollutants for Phase 3, with significant and unavoidable impacts. Impacts were adequately addressed in the FPEIR. The air quality impacts of the proposed solar project would not exceed the air impacts of the project approved by the FPEIR. Therefore, no new air quality would impacts occur as a result of the proposed project.

d) Expose sensitive receptors to substantial pollutant concentrations?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR analysis determined that the expansion of the existing landfill will not expose sensitive receptors to substantial pollutant concentrations, as there are no sensitive receptors within the surrounding vicinity of the site. (FPEIR Section 2.72, Effects Found Not To Be Significant)

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is vacant and is part of the proposed future VSL Phase 3 expansion area analyzed in the FPEIR. The solar project will not expose sensitive receptors to substantial pollutant concentrations, as there are no sensitive receptors within the surrounding vicinity of the site.

e) Create objectionable odors affecting a substantial number of people?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The analysis determined that the expansion of the existing landfill will not expose sensitive receptors to substantial pollutant concentrations or objectionable odors, as there are no sensitive receptors within the surrounding vicinity of the site. The only potential concerns regarding objectionable odors are impacts to hikers/recreationalists that may use the adjacent BLM administered lands. (FPEIR Section 2.72, Effects Found Not To Be Significant)

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is vacant and is part of the proposed future VSL Phase 3 expansion area. The project proposes to build a photovoltaic solar energy plant on 57.6 acres, within the 90-acre Phase 3 portion of the landfill. The solar project would not expose sensitive receptors to substantial pollutant concentrations or objectionable odors, as there are no sensitive receptors within the surrounding vicinity of the site. No objectionable odors are anticipated as a result of solar project approval due to the short-term nature of potential sources such as vehicle diesel engines- and gasoline-powered equipment use. These odors would dissipate rapidly as they mix with the surrounding air, and would be short in duration, ceasing upon completion of construction. Likewise, no odors are expected during operations as minimal trucks are expected.

The only potential concerns regarding objectionable odors identified by the VSL FPEIR were impacts to hikers/recreationalists that may use the adjacent BLM administered lands. Construction and operation of the proposed solar project would not impacts hikers or recreationalists. Impacts would remain less than significant. There would be no new impacts are a result of solar project implementation.

Project Design Features (PDFs) and/or Policies, Plans and Procedures (PPPs)

PDFs

The following project design features are incorporated into the proposed project and will help to reduce and avoid potential impacts:

PDF-AQ1 All perimeter fencing shall be wind fencing or the equivalent, to a minimum of four feet of height or the top of all perimeter fencing. The owner/operator shall maintain the wind fencing as needed to keep it intact and remove windblown dropout. This wind fencing requirement may be superseded by local ordinance, rule or project-specific biological mitigation prohibiting wind fencing.

PDF-AQ2 The following signage shall be erected not later than the commencement of construction:

A minimum 48 inch high by 96 inch wide sign containing the following shall be located within 50 feet of each project site entrance meeting the minimum specified text height, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, with the contact name of a responsible official for the site and a local or toll-free number that is accessible 24 hours per day:

"[Site Name] {four inch text}
[Project Name/Project Number] {four inch text}
IF YOU SEE DUST COMING FROM {four inch text}
THIS PROJECT CALL: {four inch text}
[Contact Name], PHONE NUMBER XXX-XXXX {six inch text}
If you do not receive a response, Please Call {three inch text}
The MDAQMD at 1-800-635-4617 {three inch text}"

PPPs

The following PPPs are actions mandated by federal, state, or local regulation, or are incorporated into the project by the applicant, and would reduce impacts related to air quality resources. These actions will be included in the project's mitigation monitoring and reporting program and will be included as conditions of approval:

PPP-AQ1 AQ/Operational Mitigation. Operation of all off-road and on-road diesel vehicles/equipment will comply with the County Diesel Exhaust Control Measures [SBCC §83.01.040 (c)], including but not limited to:

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

PPP-AQ2 AQ/Dust Control Plan. The developer will prepare, submit, and obtain approval from San Bernardino County Planning of a Dust Control Plan (DCP) consistent with Mojave Desert Air Quality Management District guidelines and a letter agreeing to include in any construction contracts/subcontracts a requirement that project contractors adhere

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to the requirements of the DCP. The DCP will include the following elements to reduce dust production:

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

PPP-AQ3 AQ – Installation. The developer will submit for review and obtain approval from County Planning of evidence that all air quality mitigation measures have been installed properly and that specified performance objectives are being met to the satisfaction of County Planning and County Building and Safety.

PPP-AQ4 Consistent with MDAQMD Rule 403.2 - Fugitive Dust Control for the Mojave Desert Planning Area, the proposed project must implement dust control measures and shall provide educational materials to prevent Valley Fever. Prior to ground disturbance activities, the project operator shall provide evidence to the County that the project operator and/or construction manager has developed a “Valley Fever Training Handout,” training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the County within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the County regarding the “Valley Fever Training Handout” and session(s) shall include the following:

- A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.
- Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.
- Training on methods that may help prevent Valley Fever infection.
- A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Though use of the equipment is not mandatory during work, the equipment shall be readily available and shall be provided to employees for use during work, if requested by an employee. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

Prior to the Notice to Proceed for decommissioning, the project operator shall repeat the above mitigation.

Mitigation Measures

No new mitigation measures are necessary because no significant air quality impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
IV. BIOLOGICAL RESOURCES				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional*

plans, policies, or regulations, or by the California Department of Wildlife or U.S. Fish and Wildlife Service?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

Site Survey Results

A number of biological surveys have been conducted on the project site. The most recent, in April 1997, found a total of 79 plant taxa. Total plant taxa identified on-site during all field surveys was 129. These taxa represented most species that germinated that year and the dried remains from the previous year. The majority of the expansion area is vegetated with Mojave Creosote Bush Scrub and Joshua Tree Woodland elements. Dominant plant species observed include: creosote bush (*Larrea tridentata*), burrowbush (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), Joshua tree (*Yucca brevifolia*), and peach thorn (*Lycium cooperi*).

Numerous washes and drainages pass through the project boundaries. These drainages connect to Bell Mountain Wash, which crosses the project area at the southeastern corner. Bell Mountain Wash supports some Desert Saltbush Scrub elements, but was reported as being heavily disturbed by off-highway vehicle use. Representative plant species in this area include: fourwing saltbush (*Atriplex canescens*), allscale (*A. polycarpa*), rubber rabbitbrush (*Chrysothamnus nauseosus*), and cheesebrush (*Hymenoclea salsola*).

Several species considered sensitive exist within the vicinity of the project area. Sensitive species consist of species listed by the federal and state government as threatened or endangered, candidates for future listing, or listed within the California Native Plant Society (CNPS). No sensitive vegetation species were found onsite during the survey. Examples of sensitive plant species found in the area include: Mojave monkeyflower, Pygmy poppy, and Southern skullcap.

Wildlife Resources

A total of twenty-four vertebrate species were identified on the project site during the 1997 survey, consisting of 10 reptile, 42 bird, and 13 mammal species. Several species observed which are considered common in the Mojave Desert included: side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), black-throated sparrow (*Amphispiza bilineata*), desert cottontail (*Sylvilagus audubonii*), and white-tailed antelope squirrel (*Ammospermophilus leucurus*).

In addition to these species, two sensitive species were also observed during the survey: desert tortoise (*Gopherus agassizii*) and loggerhead shrike (*Lanius ludovicianus*). The desert tortoise is a federally and state listed "threatened" species. Loggerhead shrike is a California "Species of Special Concern". These species observed onsite are discussed in further detail below. In addition, it has been assumed that the Mohave ground squirrel (*Spermophilis mohavensis*) could inhabit the site. The landfill site is located in habitat that is suitable for the squirrel.

Desert Tortoise

FPEIR Impact BIO-1 states that development of the VSL project site would result in the loss of approximately 244 acres of habitat for the desert tortoise, a state and federal listed "threatened" species resulting in a significant impact.

The VSL project site consists of approximately 491 acres. The original 80-acre landfill site is totally disturbed with landfilling and related activities (closed surface impoundments and cover material borrow area). The proposed landfill expansion would result in the use of 341 acres for landfill development

(including areas already disturbed) and an additional 10 acres for a detention basin outside the landfill footprint and approximately 10 acres for the relocation of the entry road, for a total of 361 acres. Of the 361 acres, 117 are already disturbed. Total disturbance of new area would be 244 acres.

On October 19, 1999, the County of San Bernardino completed a purchase of 2,251 acres of land at ten existing County landfills it had been leasing from the Bureau of Land Management (BLM) and transferred 1,155-acres of land as part of a mitigation package to the BLM. VSL was one of ten landfills and/or transfer station sites included in this mitigation package for County maintenance and expansion of regional landfills in accordance with the County's Solid Waste Strategic Plan. As a result of the prior mitigation package, the FPEIR determined that there were no impacts to riparian habitat or other sensitive natural communities. In the Biological Opinion, USFWS concluded that the 1,155 acres of desert tortoise habitat transferred to the BLM as part of the mitigation package for all of the landfills, including the 250 acres transferred for the VSL, would improve the overall management of the species because the land could be included in habitat enhancement and management plans. Implementation of the land transfer included the acquisition and management of compensation lands that support desert tortoise. It was the USFWS opinion that transferring the land would not result in direct adverse effects to desert tortoise. However, the Biological Opinion concluded that the land transfer would result in indirect effects on the species. Indirect effects are those that are caused by the action at a later time. The indirect effects of the land transfer are associated with the expansion of the landfill. These include individuals being killed or injured by vehicles or equipment, by burrows being collapsed, or by being handled by uninformed workers. As an interim measure, the County constructed tortoise exclusionary fencing around the Phase 1B and Phase 2 areas and conducted clearance surveys which resulted in the relocation of two individuals.

The potential effects of site development must be evaluated by USFWS through consultation under Section 10(a)(1)(B) of the federal endangered species act. In addition, because the tortoise is also a state listed "threatened" species, consultation with California Department of Fish and Game under Section 2081 of the Fish and Game Code will also be required. Since it is known that desert tortoises occupy the site, no additional field surveys were conducted. The Biological Opinion issued by the U.S. Fish and Wildlife Service in February 1999 stated that the site is Category III habitat meaning that the compensation ratio is 1:1. This ratio was established for Category III habitat in conformance with the 1994 Desert Tortoise (Mojave Population) Recovery Plan and the 1991 document entitled "Compensation for the Desert Tortoise" approved by the Desert Tortoise Management Oversight Group.

Compensation would have to take the form of the purchase of property containing desert tortoise habitat that can be permanently protected and managed with emphasis on protection and preservation of desert tortoise. Fee title to the property would be conveyed to Bureau of Land Management (BLM) or California Department of Fish and Wildlife (CDFW) for protection and management purposes. Mitigation Measures for the protection of the desert tortoise during ground disturbance and excavation in Phases 1B, 2 and 3 are provided in mitigation measure BIO-1.

Mohave Ground Squirrel

Impact BIO-2 states that development of the VSL expansion site would result in additional loss of Mohave ground squirrel, a State of California threatened species, and its habitat. This was a potentially significant impact. The VSL expansion project site is within the historic range of the Mohave ground squirrel which shares habitat in the region with the desert tortoise. The State of California lists both the desert tortoise and the Mohave ground squirrel as threatened under CESA. The Mohave ground squirrel is a small pinkish-brown or gray squirrel up to 6.5 inches in length with a tail ranging from 2 to 3.5 inches. The species is nocturnal, and also hibernates during the winter emerging in March in the southern portions of the desert where the landfill site is located. Because the squirrel is a burrow dwelling species, grading and excavation activities could destroy or damage burrows and kill individuals. The FPEIR assumed that the Mohave ground squirrel is present on-site because the area is within its historic range and suitable habitat is present on-site. The FPEIR included mitigation measure BIO-2,

which required the County to apply for an Incidental Take Permit (Section 2081 of the Fish and Game Code) for the Mohave ground squirrel.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a special status species (federal and state) not seen on-site during field surveys, but is commonly reported from the area, has been observed in adjacent regions, and could occur in the same habitat type as found on-site. Effects to this species would be the potential loss of nesting and foraging habitat over the life of the project and potential loss of eggs and young if the species were to breed onsite and construction takes place during the nesting season (late February to July). Although the species was not identified onsite in previous surveys, the burrowing owl is mobile and could occupy the site in the future.

The protocol is to survey the area and identify occupancy then conduct a forced dispersal (outside the nesting season) and eliminate the burrows. If nests are encountered, they cannot be disturbed during the nesting season. Mitigation Measures for the protection of the burrowing owl during ground disturbance and excavation in Phases 1B, 2 and 3 are provided in mitigation measure BIO-5.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

BIO-1: Prior to any new ground disturbance in Phase 1B, (first SWMD phase that would disturb previously undisturbed area) the County shall enter into consultation with USFWS and CDF[W] for impacts to the desert tortoise. In the absence of an adopted West Mojave Coordinated Management Plan, the County must prepare a Habitat Conservation Plan to accompany the application for an "incidental take permit" (Section 10). The HCP would ensure that there is adequate minimization and mitigation of the effects of the incidental take.

Concurrently the County shall enter into consultation with CDF[W] for an incidental take permit under Section 2081 of the Fish and Game Code. Compensation for the loss of habitat and the incidental take of individuals would be determined prior to any new disturbance.

The 1999 USFWS Biological Opinion also identified a number of measures. These would be discussed in consultation under BIO-1.

- a. A proponent shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the USFWS/ CDF[W]. The FCR shall have the authority to halt all project activities that are in violation of the stipulations. The FCR may be an agent for the proponent, the site manager, any other project employee, or a contracted biologist/consulting firm
- b. The proposed landfill expansion will include an employee education program. Prior to ground disturbance activities, new site employees shall be required to participate in this education program. The program may consist of a class or video presented by a qualified biologist or a video. Wallet-sized cards with important information for employees to carry are recommended. The proponent would be responsible for ensuring that the education program is presented prior to conducting ground-disturbance activities. New employees shall receive formal, approved training prior to working on-site. The program shall cover the following topics at a minimum:
 - distribution of the desert tortoise;

- general behavior and ecology of the tortoise;
- sensitivity to human activities;
- legal protection;
- penalties for violations of State or Federal laws;
- reporting requirements; and
- project protective mitigation measures.

Landfill operation designs specified for the proposed landfill expansion shall be configured in a manner designed to minimize impacts to adjacent tortoise habitat/populations to the degree feasible and should take into consideration site topography, placement of facilities, location of animal burrows in buffer and adjacent land areas, public health and safety, deposition of wind-blown litter, and other limiting factors. Work area boundaries shall be delimited with flagging or other marking during initial facility upgrades, in order to minimize surface disturbance associated with vehicle straying.

Special habitat features (tortoise and other animal burrows, woody vegetation, unique plant assemblages, etc.) located on the periphery of proposed site expansions, but outside of proposed landfill site fencing, shall be avoided to the extent possible.

- d. Qualified biologists or person(s) trained in desert tortoise detection/monitoring work shall be required on-site during initial project activities (excavation of Phase 2 and Phase 3 areas). Such individuals shall have authority from SWMD to halt any action that might result in harm to a tortoise. The qualified tortoise monitor shall survey any area identified for earth disturbing activities immediately prior to disturbance activities. Should an active desert tortoise burrow be detected within the anticipated disturbance area, project activities shall halt until such time as an authorized tortoise handler (see measure BIO-6 below) has removed the tortoise from danger.
- e. Only biologists authorized by the USFWS, under the auspices of the Biological Opinion issued for the land conveyance and/or ESA Section 10 Permit (if applicable), shall handle desert tortoises. The proponent shall submit the name(s) of the proposed biologist(s) to the USFWS for review and approval at least 15 days prior to the onset of activities. No project activities shall begin until an authorized biologist is approved.
- f. Tortoise excavation/relocation shall be completed under the direction of the authorized biologist. All tortoises found within impact areas shall be marked and removed from the area of potential impact, into suitable habitat close to the original location but outside the perimeter of the landfill site, preferably within Tortoise Critical Habitat Units if feasible and concurred upon by the USFWS.
- g. If the removal of a tortoise is during the season of above-ground activity, the tortoises shall be placed beside a nearby burrow of appropriate size. If the removal is not in the season of above-ground activity, the tortoise shall be moved (dug out of burrow if necessary) on a seasonably warm day and placed at the mouth of a nearby burrow of appropriate size. If the tortoise does not enter the burrow, an artificial burrow may be needed. The authorized biologist shall be allowed some judgment and discretion to ensure that survival of the tortoise is likely. Relocated animals shall be monitored at scheduled intervals for a period of at least six months, to determine relocation success/health status of relocated animals. Use of telemetry equipment on a limited

number of relocated tortoises is highly recommended, if feasible and concurred upon by the USFWS.

h. Tortoises moved during the course of project activities shall be marked for future identification. An identification number using the acrylic paint/epoxy covering technique shall be placed on the fourth left costal scute (USFWS 1990). Thirty-five mm slide photographs of the carapace, plastron, and the fourth costal scute shall be taken. No notching is authorized.

i. Desert tortoises may be handled only by the authorized biologist and only when necessary. New latex gloves shall be used when handling each tortoise to avoid the transfer of infectious diseases between animals. Aside from the initial site clearance, any tortoise moved shall be placed in the shade of a shrub in the direction in which it was facing when found or at the entrance to an unoccupied burrow.

In general, tortoises should be moved the minimum distance possible to ensure their safety. In handling desert tortoises, the authorized biologist shall follow the General Handling Protocol sections of the "Protocols for Handling Live Tortoises" prepared by the Arizona Game and Fish Department and others in 1990. Replacement of lost fluids with a syringe is not authorized.

j. The authorized biologist shall maintain a record of all desert tortoises encountered during project activities. This information shall include for each tortoise:

- the locations (narrative and maps) and dates of observations;
- general condition and health, including injuries and state of healing and whether animals voided their bladders;
- location moved from and location moved to;
- diagnostic markings (i.e., identification numbers or marked lateral scutes).

k. Prior to any earth-moving activities within each phase or subphase portion of the expansion area, tortoise-proof fencing shall be installed around the perimeter of that phase or subphase area ensuring tortoises outside the expansion area do not enter the active site. The fence shall be inspected at regular intervals to ensure no potential areas that could be breached by wildlife exist. Note: Fencing for all phases 1A, 1B, 2 and 3 have been completed.

l. An effort should be made to enclose as much of the landfill access roads as possible within this fence. The fence shall be constructed under the direction of a qualified biologist or approved tortoise fence technician.

The fence shall be located to avoid all tortoise burrows; to the extent possible, burrows shall be placed on the outside of the enclosure. The fence shall be a standard 4-5 strand barbed wire or chain link fence, with the lower portion consisting of a 1-inch mesh hardware cloth panel. This panel shall extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent tortoise entry. The fence shall be supported sufficiently to maintain its integrity. The gate at the facility entrance shall be tortoise-proof. This gate shall remain closed except during hours open to the public. The fence and access road shall be checked at least monthly and maintained when necessary by the proponent to ensure its integrity.

- m. Prior to the completion of the proposed land conveyance and following fence installation, an authorized biologist shall conduct a thorough survey for tortoises and tortoise burrows within the proposed fenced facility. All tortoise burrows shall be excavated, tortoises removed and burrows destroyed prior to additional earth disturbance. All tortoises found shall be marked and removed from the enclosure and placed according to measure BIO-9. If the removal is during the season of above-ground activity, the tortoises shall be placed beside a nearby burrow of appropriate size. If the removal is not in the season of above-ground activity, the tortoise shall be moved (dug out of burrow if necessary) on a seasonably warm day and placed at the mouth of a burrow of appropriate size. If the tortoise does not enter the burrow, an artificial burrow may be needed. The authorized biologist shall be allowed some judgment and discretion to ensure that survival of the tortoise is likely.
- n. No later than 90 days after completion of facility fencing/tortoise relocation activities, the FCR and authorized biologist shall prepare a report for the resource agencies. The report shall document the effectiveness and practicality of the mitigation measures, the number of tortoises excavated from burrows, the number of tortoises moved from the site, the number of tortoises killed or injured, and the specific information for each tortoise as described in BIO-11. The report shall make recommendations for modifying the stipulations to enhance tortoise protection.
- o. Upon locating a dead or injured tortoise, the proponent is to notify the USFWS/CDF[W]. The information provided must include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death, if known, and other pertinent information. USFWS/CDF[W] will advise the project proponent regarding the handling of the carcass. Injured animals shall be transported to a qualified veterinarian for treatment at the expense of the project proponent. If an injured animal recovers, the USFWS should be contacted for final disposition of the animal.
- p. A landfill operations program addressing wind-blown litter arising from site operation, as well as the development of a raven (*Corvus corax*) management plan, shall be implemented that will facilitate the most effective refuse control practices, while minimizing potential provisioning of desert tortoise predators. The raven management plan developed shall be approved by CDF[W].

BIO-2: SWMD shall enter into consultation with CDF[W] for a 2081 SWMD (Incidental Take Permit) for the Mohave ground squirrel, threatened under CESA. To determine compensations CDF[W] may require SWMD to complete [a] Cumulative Human Impact Evaluation Forms (CHIEF). Compensation in the form of acquisition and permanent preservation of Habitat Management Lands is the usual mitigation. Transfer of the lands to CDF[W] or an approved non-profit corporation would complete the mitigation requirements. Copies of documentation of the transfer of lands shall be provided to County Land Use Services Department.

BIO-3: Prior to disturbance of previously undisturbed land, SWMD shall conduct clearance surveys in areas scheduled for disturbance. Biologists shall comply with mitigation measures BIO-1a through BIO-1p for desert tortoise. Results of the clearance surveys shall be documented and a report of findings submitted to the resource agencies.

BIO-4: The operator/construction contractor shall relocate all SWMD species protected by the California Native Plants Act and the County of San Bernardino Code deemed suitable for transplanting by a qualified botanist/horticulturist. These plants will be used as landscaping onsite, be maintained in an onsite nursery area for future revegetation efforts or transported for use at another County facility.

BIO-5 Prior to disturbance of previously undisturbed land in Phases 2 and 3, SWMD shall survey areas to be disturbed and adjacent areas for burrowing owls in accordance with Department of Fish and Game protocol. Results of the survey shall be documented and then reported to CDF[W] for review. If forced, dispersal is required it shall be completed consistent with DFG protocol.

FPEIR Level of Significance After Mitigation

Desert Tortoise

With the implementation of the mitigation measures listed above, impacts to the desert tortoise within the proposed expansion area would be less than significant. According to the Environmental Assessment completed for the Proposed Conveyance of Federally Managed Public Lands (BLM, October 1997), the land conveyance resulted in the County of San Bernardino transferring a total of 1,155 acres of suitable tortoise habitat to the BLM, including 250 acres to compensate at a ratio of 1:1 (acres) of habitat that would be lost with the VSL landfill expansion. The land transfer and implementation of measures identified in the Biological Opinion issued by USFWS (mitigation measures BIO-1 through BIO-5) would ensure that no significant impacts to existing regional desert tortoise habitat or individuals occur with expansion of the landfill.

Mohave Ground Squirrel

Mitigation in the form of consultation with CDFW and the acquisition and transfer of Habitat Management lands would reduce this impact to a less than significant level.

Burrowing Owl

Surveying of areas to be disturbed and adjacent areas for burrowing owls in accordance with Department of Fish and Wildlife protocols would reduce impacts to less than significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Phoenix Biological Consulting (Phoenix) initiated presence/absence desert tortoise and burrowing owl surveys on 90 acres within a portion of a single assessor parcel (APN 472-011-34) on which the project proponent wishes to construct a solar energy generation facility within 57.6 acres. (See Appendix B, *Focused Desert Tortoise & Burrowing Owl Presence/Absence Surveys*). The initial desert tortoise and burrowing owl surveys were conducted during the winter of 2014 on February 14th and 15th in preparation for geotechnical feasibility studies and to update the assessment of biological resources on the site for the proposed solar project and associated CEQA analysis.

Habitat

The terrain of the 90 acre site includes a mix of small rolling hills, braided washes and some areas of incised (>15 feet) desert washes. The elevation is 3,000 feet. The terrain is composed of gravelly, loam soils which are suitable for fossorial reptiles and mammals to create burrow. Also, there is exposed caliche in some of the steeper washes which also provides some burrow habitat in the wash banks in the form of caliche burrows. The majority of caliche burrows are small and are inhabited by desert wood rats (*Neotoma sp.*). The vegetation community within the site is comprised of creosote bush scrub (*Larrea tridentate*)/Bursage (*Ambrosia dumosa*) scrub with low density Joshua tree (*Yucca brevifolia*). Dominant perennials include creosote (*Larrea tridentate*), burro-weed (*Ambrosia dumosa*), Joshua tree (*Yucca brevifolia*) and white ratany (*Krameria grayia*). Annuals were not readily indefinable due to the timing of the surveys. The entire list of vascular plants detected during the survey can be found on Appendix B, Table 6.

There are no other types of habitat present on site except for creosote/bursage scrub and there are no sensitive habitat types such as mesquite bosques, riparian habitat or fan palm oasis. Joshua trees and

Mohave yuccas are present in low density on site. The protected desert plants will be recorded and relocated prior to disturbance. The soils on site are Nebona-Cuddeback and Cajon-Arizo Complex which are characterized as stabilized, well-drained sandy-loamy and gravelly sand in alluvial fans (NRCS, 2014). The soils originate from the Quartzite granitic mountains to the north-northwest of the site. These soils provide suitable consistency for fossorial reptiles and mammals to create burrows. Due to these findings and FPEIR mitigation measure BIO-5, presence/absence surveys were implemented on February 14-15, 2014 at the request of the County of San Bernardino and the resource agencies.

Desert Tortoise

The site was negative for desert tortoise and tortoise sign (scat, shell fragments, tracks, courtship rings) within the project boundaries, zone-of-influence, gen-tie transmission line and associated buffers. However one deteriorated, possible tortoise burrow was located within the proposed solar site during the initial surveys. The burrow was too deep to see the end of but the shape of the burrow was typical tortoise shape. It is suspected that the burrow may be a remnant sign of the tortoises that were present in the past. The burrow was re-checked during the subsequent visits and appears to be inactive. Several canid burrows were observed within the project area, however no tortoise sign was associated with these burrows. The project is not located in desert tortoise critical habitat and there are no conservation areas in or adjacent to the site.

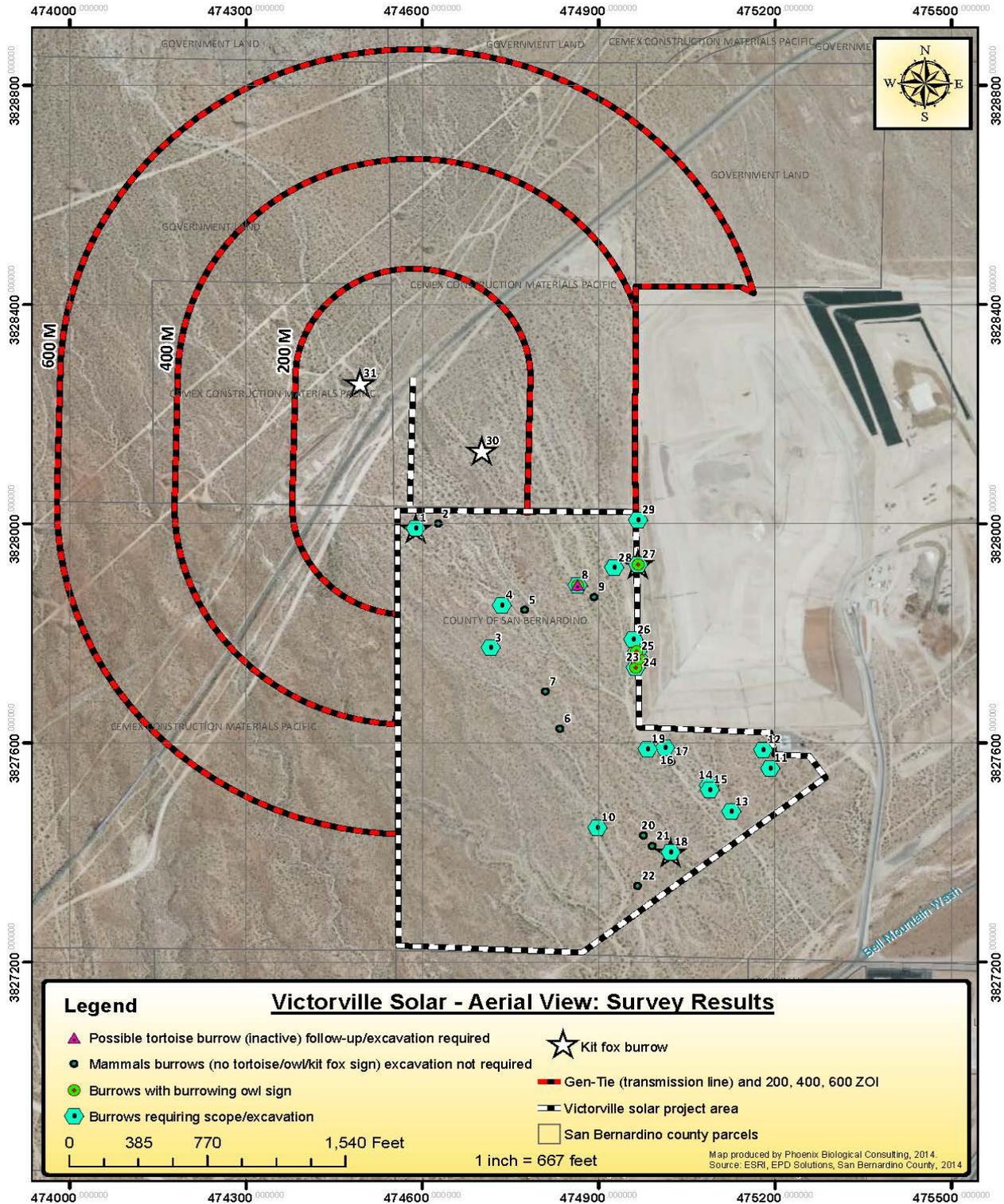
Burrowing Owl

The site was positive for occupied burrowing owl habitat within the project area Figure 14, *Biological Resource Map*. Two adult burrowing owls and one juvenile were observed at WPT 25 & 24, along the eastern perimeter fence. The adult male owl was observed flying along the eastern portion of the site on several occasions. All three owls were detected using a trail camera that was positioned in front of the nest burrow. Several other suitable burrows were located within the project site and within the 150 meter buffer survey of the gen-tie line. All three burrows are located along the eastern edge of the Phase 3 landfill, within 3-4 feet of the perimeter fence. Owl whitewash was also detected on the fence, indicating that the fence is being used as a vantage point (perch site) for the owls. However, no other burrows had owl sign present. The site consists of one owl territory based on the survey results.

Other Sensitive Bird Species

Loggerhead Shrikes (*Larius ludovicianus*), a species of special concern during nesting, were observed several times during the survey. Additionally three inactive bird nests were observed during the survey. The surveyors paid particular attention to all Joshua trees encountered to ensure no hawks were nesting in them. No raptors were sighted foraging while conducting the tortoise and burrowing owl survey. All bird species detected are included on Appendix B, Table 5.

Figure 14: Biological Resource Map (Aerial View) for Victorville Solar



□ County of San Bernardino □

Victorville Sanitary Landfill Solar PV Project

Mammals

No threatened or endangered mammal species were detected during the survey effort.

Desert Kit Fox

Two kit fox burrows were documented off site and three kit fox burrows were on site. One desert kit fox was observed via the trail camera at WTP 25, along the eastern perimeter fence. The desert kit fox is not listed as a threatened or endangered species. It is listed as a BLM sensitive species and is protected as a fur-bearing mammal under California Code of Regulations, Title 14. The kit fox burrows did not appear to be active on site and no natal dens or pups were observed.

Mohave Ground Squirrel

The VSL did not obtain a 2081 Incidental Take Permit (ITP) for the site. A protocol presence/absence survey was conducted for the Mohave ground squirrel. The Mohave ground squirrel presence/absence surveys were conducted during the 2014 spring survey season (See *Mohave ground squirrel (Xerospermophilus mohavensis) Trapping Results*, Appendix C) A visual survey was conducted on April 5, 2014, and three trapping sessions took place during the months of April to June. All potential Mohave ground squirrel habitat within the grid location was surveyed during this visit. A list of the plant and animal species detected during the initial visit and during the trapping sessions was compiled (See Appendix C, Table 4-6). Mohave ground squirrel were not seen nor heard during the visual survey. Furthermore, MGS were not trapped during any of the three sessions. There was only one species trapped on the grid: Antelope ground squirrels (*Ammospermophilus leucurus*). Antelope ground squirrels are a commonly occurring, non-listed species.

Lake Effect

Renewable energy projects have received recent attention in regards to impacts associated with avian collisions. The concern is that solar thermal projects and photovoltaic projects may disorient birds that are flying through the area, especially at night. The lake effect is a term that is used to describe the phenomenon that the birds interpret a solar array to be a body of water and attempt to land on the surface. The birds either impact with the panels or land and cannot take off, in the case of water birds. The phenomenon of lake effect is not new and there are studies of avian species mortality documented as early as 1986 at the Solar One facility near Daggett, CA. (McCrary, M. D et al, 1986). The Solar One site uses reflective technology that focuses the sun's energy, via mirrors, onto an elevated boiler situated in the center of the mirrors. The results of the study indicated 70 birds (26 species) were killed. 81percent of the birds died of collisions with the panels. 19 percent died from burns. The total impact on the local bird population was considered minimal (0.6-0.7% per week).

Another study was conducted by Western Ecosystems Technology, Inc. on the Kingbird Photovoltaic Solar Project (Erikson, et. al., 2013). The study found that limited information regarding avian collisions exists, but found information for one PV facility, Desert Sunlight, which is located south of Kingbird in Riverside County. Desert Sunlight, at 550 MW and approximately 4,176 acres, is many times the size of the proposed solar facility. These data showed average avian mortalities in the range of four per month across the entire 4,000-acre site since the start of construction, although as the project becomes larger, that number of fatalities could increase. Of the carcasses or evidence of carcasses found on the site, only about ten birds showed any direct evidence of impact with PV panels, which is a small percentage of the total number of recorded carcasses. Currently available data, which is limited, indicate relatively low mortality due to direct impacts with project facilities, particularly PV panels. For example, at Desert Sunlight, current data suggests that avian mortality associated with direct contact with panels is less than 10 percent of identified avian deaths, while the other possible causes were associated with temporary facilities like the ponds, or structures and facilities not unique to solar facilities like fences, project buildings, transmission line, or unknown and possible background causes. This study recognizes the impact of photovoltaic (PV) projects but when PV is compared to other impacts (avian fatalities/year)

such as cats (1.4-3.7 billion), buildings and windows (98 – 980 million), power lines (10,000 to 174 million), vehicles (60 to 80 million), communication towers (6.8 million), wind turbines (209,059 to 330,010) it is apparent that avian deaths from PV is not biologically significant.

Finally the United States Fish and Wildlife Forensics Laboratory has recently published a preliminary results report on avian mortalities associated with three new large solar projects; Ivanpah Solar (ISEGS), Desert Sunlight (DS) and Genesis (Kagan, R.A. et al, 2014). The three projects use different technologies: ISEGS – reflective solar, similar to the Solar One project, DS-photovoltaic, and Genesis-reflective solar trough. The total number of mortalities over the course of a year for each site was ISEGS (141), Genesis (31) and DS (61). Unfortunately the avian mortalities at all three sites have not been collected in a systematic manner and most of the detections were incidental. The report has not been peer-reviewed so it is difficult to make conclusions on the rate of mortalities and whether it is biologically significant when compared to other forms of avian mortalities and solar projects of much smaller size. It is clear that solar flux mortality at ISEGS is a separate event isolated to reflective technology. Additionally, the DS photovoltaic site has ponds nearby that are an attractant to water birds. The preliminary analysis indicates that not all types of solar projects have the same level of impact.

The Victorville Solar project will utilize PV panels, which does not eliminate the reflective component that is characteristic of reflective technology but it would reduce the impact and eliminate the potential for birds to receive burns. Additionally, the site will consist of a 10 MWac photovoltaic array of approximately 57 acres. Due to the relatively small size of the site the anticipated avian mortality is not expected to be biologically significant compared to other forms of development or more harmful renewable energy types, such as solar thermal technology. The solar project site's topography would provide offsets to eliminate a contiguous "lake effect" and solar panels would maintain 28 cm or more between panels to offset a continuous band, minimizing lake effect. This has been shown to significantly reduce passerine strikes on windows on commercial buildings (Kagan, R.A. et al, 2014).

Level of Significance Before Mitigation

Potentially significant. Grading and construction for the solar project would occur over an approximately 6-month period and have the potential to impact sensitive species.

The findings were negative for desert tortoise within the project solar site and gen-tie route. However tortoises are known to occupy the surrounding habitat. Burrowing owl survey results were positive—one owl territory is located along the eastern perimeter of the Phase 3 boundary. Additionally, a desert kit fox was observed and fox burrows are present onsite and offsite. As a result, sensitive species could be killed or injured directly by vehicles or equipment, or indirectly by burrows being collapsed, or by being handled by uninformed workers. Mitigation measures BIO-1 through BIO-5, would prevent the likelihood of desert tortoise, burrowing owls and other animals from entering the site during the construction phase, would minimize the potential for take, and minimize biological impacts to a less than significant level.

Applicable FPEIR Mitigation Measures

The following mitigation measures are taken directly from the FPEIR and modified as necessary based on project-specific approvals (**bold and underline** is new text; ~~strikethrough~~ is removed text). All of the mitigation measures listed apply to and will be implemented for the proposed solar project.

BIO-1: Prior to any new ground disturbance **in a Phase 1B, (first SWMD phase that would disturb previously undisturbed area), if determined necessary,** the County **or Permittee** shall enter into consultation with USFWS and CDFGW for impacts to the desert tortoise. In the absence of an adopted West Mojave Coordinated Management Plan, the County must prepare a Habitat Conservation Plan (**HCP**) to accompany the application for an "incidental take permit" (Section 10). The HCP would ensure that there is adequate minimization and mitigation of the effects of the incidental take.

Concurrently the County or Permittee shall enter into consultation with CDFGW for an incidental take permit, if determined necessary, under Section 2081 of the Fish and Game Code. Compensation for the loss of habitat and the incidental take of individuals would be determined prior to any new disturbance.

The 1999 USFWS Biological Opinion also identified a number of measures. These would be discussed in consultation under BIO-1.

- a. A proponent shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the USFWS/CDFGW. The FCR shall have the authority to halt all project activities that are in violation of the stipulations. The FCR may be an agent for the proponent, the site manager, any other project employee, or a contracted biologist/consulting firm
- b. The proposed landfill expansion will include an employee education program. Prior to ground disturbance activities, new site employees shall be required to participate in this education program. The program may consist of a class or video presented by a qualified biologist or a video. Wallet-sized cards with important information for employees to carry are recommended. The proponent would be responsible for ensuring that the education program is presented prior to conducting ground-disturbance activities. New employees shall receive formal, approved training prior to working on-site. The program shall cover the following topics at a minimum:
 - distribution of the desert tortoise;
 - general behavior and ecology of the tortoise;
 - sensitivity to human activities;
 - legal protection;
 - penalties for violations of State or Federal laws;
 - reporting requirements; and
 - project protective mitigation measures.
- c. Landfill operation designs specified for the proposed landfill expansion shall be configured in a manner designed to minimize impacts to adjacent tortoise habitat/populations to the degree feasible and should take into consideration site topography, placement of facilities, location of animal burrows in buffer and adjacent land areas, public health and safety, deposition of wind-blown litter, and other limiting factors. Work area boundaries shall be delimited with flagging or other marking during initial facility upgrades, in order to minimize surface disturbance associated with vehicle straying.

Special habitat features (tortoise and other animal burrows, woody vegetation, unique plant assemblages, etc.) located on the periphery of proposed site expansions, but outside of proposed landfill site fencing, shall be avoided to the extent possible.
- d. Qualified biologists or person(s) trained in desert tortoise detection/monitoring work shall be required on-site during initial project activities (excavation of Phase 2 and Phase 3 areas). Such individuals shall have authority from SWMD to halt any action that might result in harm to a tortoise. The qualified tortoise monitor shall survey any area identified for earth disturbing activities immediately prior to disturbance activities. Should an active desert tortoise burrow be detected within the anticipated disturbance area, project activities shall halt until such time as an authorized tortoise handler (see measure **BIO-6 p below**) has removed the tortoise from danger.
- e. Only biologists authorized by the USFWS, under the auspices of the Biological Opinion issued for the land conveyance and/or ESA Section 10 Permit (if applicable), shall handle desert tortoises. The proponent shall submit the name(s) of the proposed biologist(s) to the USFWS for review and approval at least 15 days prior to the onset of activities. No project activities shall begin until an authorized biologist is approved.
- f. Tortoise excavation/relocation shall be completed under the direction of the authorized biologist. All tortoises found within impact areas shall be marked and removed from the area of potential impact, into suitable habitat close to the original location but outside the perimeter of the landfill site, preferably within Tortoise Critical Habitat Units if feasible and concurred upon by the USFWS.
- g. If the removal of a tortoise is during the season of above-ground activity, the tortoises shall be

- placed beside a nearby burrow of appropriate size. If the removal is not in the season of above-ground activity, the tortoise shall be moved (dug out of burrow if necessary) on a seasonably warm day and placed at the mouth of a nearby burrow of appropriate size. If the tortoise does not enter the burrow, an artificial burrow may be needed. The authorized biologist shall be allowed some judgment and discretion to ensure that survival of the tortoise is likely. Relocated animals shall be monitored at scheduled intervals for a period of at least six months, to determine relocation success/health status of relocated animals. Use of telemetry equipment on a limited number of relocated tortoises is highly recommended, if feasible and concurred upon by the USFWS.
- h. Tortoises moved during the course of project activities shall be marked for future identification. An identification number using the acrylic paint/epoxy covering technique shall be placed on the fourth left costal scute (USFWS 1990). Thirty-five mm slide photographs of the carapace, plastron, and the fourth costal scute shall be taken. No notching is authorized.
- i. Desert tortoises may be handled only by the authorized biologist and only when necessary. New latex gloves shall be used when handling each tortoise to avoid the transfer of infectious diseases between animals. Aside from the initial site clearance, any tortoise moved shall be placed in the shade of a shrub in the direction in which it was facing when found or at the entrance to an unoccupied burrow.
In general, tortoises should be moved the minimum distance possible to ensure their safety. In handling desert tortoises, the authorized biologist shall follow the General Handling Protocol sections of the "Protocols for Handling Live Tortoises" prepared by the Arizona Game and Fish Department and others in 1990. Replacement of lost fluids with a syringe is not authorized.
- j. The authorized biologist shall maintain a record of all desert tortoises encountered during project activities. This information shall include for each tortoise:
- the locations (narrative and maps) and dates of observations;
 - general condition and health, including injuries and state of healing and whether animals voided their bladders;
 - location moved from and location moved to;
 - diagnostic markings (i.e., identification numbers or marked lateral scutes).
- k. Prior to any earth-moving activities within each phase or subphase portion of the expansion area, tortoise-proof fencing shall be installed around the perimeter of that phase or subphase area ensuring tortoises outside the expansion area do not enter the active site. The fence shall be inspected at regular intervals to ensure no potential areas that could be breached by wildlife exist. Note: Fencing for all phases 1A, 1B, 2 and 3 have been completed.
- l. An effort should be made to enclose as much of the landfill access roads as possible within this fence. The fence shall be constructed under the direction of a qualified biologist or approved tortoise fence technician. The fence shall be located to avoid all tortoise burrows; to the extent possible, burrows shall be placed on the outside of the enclosure. The fence shall be a standard 4-5 strand barbed wire or chain link fence, with the lower portion consisting of a 1-inch mesh hardware cloth panel. This panel shall extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent tortoise entry. The fence shall be supported sufficiently to maintain its integrity. The gate at the facility entrance shall be tortoise-proof. This gate shall remain closed except during hours open to the public. The fence and access road shall be checked at least monthly and maintained when necessary by the proponent to ensure its integrity.
- m. Prior to the completion of the proposed land conveyance and following fence installation, an authorized biologist shall conduct a thorough survey for tortoises and tortoise burrows within the proposed fenced facility. All tortoise burrows shall be excavated, tortoises removed and burrows destroyed prior to additional earth disturbance. All tortoises found shall be marked and removed from the enclosure and placed according to measure BIO-1 9. If the removal is during the season of above-ground activity, the tortoises shall be placed beside a nearby burrow of appropriate size. If the removal is not in the season of above-ground activity, the tortoise shall be moved (dug out of burrow if necessary) on a seasonably warm day and placed at the mouth

- of a burrow of appropriate size. If the tortoise does not enter the burrow, an artificial burrow may be needed. The authorized biologist shall be allowed some judgment and discretion to ensure that survival of the tortoise is likely.
- n. No later than 90 days after completion of facility fencing/tortoise relocation activities, the FCR and authorized biologist shall prepare a report for the resource agencies. The report shall document the effectiveness and practicality of the mitigation measures, the number of tortoises excavated from burrows, the number of tortoises moved from the site, the number of tortoises killed or injured, and the specific information for each tortoise ~~as described in BIO-14~~. The report shall make recommendations for modifying the stipulations to enhance tortoise protection.
- o. Upon locating a dead or injured tortoise, the proponent is to notify the USFWS/CDFGW. The information provided must include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death, if known, and other pertinent information. USFWS/CDFGW will advise the project proponent regarding the handling of the carcass. Injured animals shall be transported to a qualified veterinarian for treatment at the expense of the project proponent. If an injured animal recovers, the USFWS should be contacted for final disposition of the animal.
- p. A landfill operations program addressing wind-blown litter arising from site operation, as well as the development of a raven (*Corvus corax*) management plan, shall be implemented that will facilitate the most effective refuse control practices, while minimizing potential provisioning of desert tortoise predators. The raven management plan developed shall be approved by CDFGW.
- q. Common Raven Predation Management Plan – Offsite. In order to offset indirect and cumulative impacts from development projects with the potential to increase raven populations (and decrease desert tortoise populations), the applicant shall contribute to the regional raven management plan, which the National Fish and Wildlife Foundation manages. For projects with 30-year durations, the contribution to the regional plan is \$105 per acre impacted. The total contribution includes acreage associated with substations and transmission lines. Submit verification of payment to County Planning**
- BIO-2: SWMD or Permittee shall enter into consultation with CDFGW for a 2081 SWMD (Incidental Take Permit) for the Mohave ground squirrel, threatened under CESA, if determined necessary. To determine compensations CDFGW may require SWMD to complete Cumulative Human Impact Evaluation Forms (CHIEF). Compensation in the form of acquisition and permanent preservation of Habitat Management Lands is the usual mitigation. Transfer of the lands to CDFGW or an approved non-profit corporation would complete the mitigation requirements. Copies of documentation of the transfer of lands shall be provided to County Land Use Services Department.
- BIO-3: Prior to disturbance of previously undisturbed land:
- a. Solid Waste Management Division (SWMD) or Permittee** shall conduct clearance surveys in areas scheduled for disturbance. Biologists shall comply with mitigation measures BIO-1a through BIO-1p for desert tortoise. Clearance surveys shall be conducted within the project site, the gen-tie corridor and new access roads that will be used during the construction phase to identify areas of potential avoidance or areas where realignment of proposed access roads is preferred to minimize impacts. The clearance survey consists of two passes; one pass is on a north-south axis at 5 meter intervals and the second pass is on a west-east axis at 5 meter intervals. If both passes are negative no further surveys are needed. A brief report of the R results of the clearance surveys shall be documented and a report of findings submitted to the resource agencies.
- b. A qualified biologist trained in desert tortoise detection/monitoring work shall provide construction monitoring onsite during clearing, grubbing, grading, installation of solar panels, and until all heavy equipment operations are complete. Desert tortoise-proof fencing shall be maintained around project boundaries and areas inside the fencing shall be surveyed to detect and remove/relocate any desert tortoise. In the event a tortoise is**

- detected on the project site, during construction operations, the project proponent will halt construction efforts and will notify the lead agency within a 24 hour period. Consultation with the resource agencies will be required.
- c. Prior to any construction activities on the Project site, the Permittee will implement a Worker Environmental Awareness Program (WEAP) to educate onsite workers about sensitive environmental issues associated with the Project. The program will be administered to all onsite personnel, including the Permittee's personnel, contractors, and all subcontractors, prior to the employee's commencing work on the site. The WEAP will include but not be limited to protected species that have potential to occur within the Victorville Solar site; burrowing owl, Mojave ground squirrels, desert tortoises, nesting birds, plants, and other wildlife species. Construction workers shall be provided with an information pamphlet on general tortoise and burrowing owl biology, how to recognize and avoid desert tortoises and burrowing owls, authorized speed limits while working within the project site, trash abatement and checking under parked vehicles and equipment prior to moving. All personnel will sign the WEAP training to provide a record of compliance.
- d. At the end of each workday, the Permittee shall place an escape ramp at each end of any open trenches or pits to allow any animals that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degrees.
- e. All personnel shall utilize existing roads, whenever possible, to minimize disturbance to potential Desert Tortoise habitat. Vehicular speed limits will be 15 miles per hour on all project related dirt access roads and work areas.
- f. Nesting Bird Survey: To comply with the Migratory Bird Treaty Act (MBTA), if any ground disturbance is anticipated during the nesting bird season (February 1st through August 31st) the project proponent will initiate a breeding/nesting bird survey to ensure no nesting birds are impacted. If a nesting bird is detected, the area will be avoided and a 300 foot buffer for passerines and a 500 foot buffer for raptors, or a buffer determined by CDFW, will be installed until the nesting birds have fledged and have been observed to be foraging independently.
- g. A Nesting Bird Plan (NBP) shall be submitted to CDFW for review and approval. CDFW shall approve the NBP prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/ breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region). The NBP shall include project specific measures to ensure that impacts to nesting birds do not occur and that the project complies with all applicable laws related to nesting birds and birds of prey. The NBP shall include at a minimum: monitoring protocols; survey timing and duration; the creation, maintenance, and submittal to CDFW of a bird nesting log; and project-specific avoidance and minimization measures. Avoidance and minimization measures shall include, at a minimum: project phasing and timing, monitoring of project-related noise, sound walls, and buffers, where appropriate. In project areas where nesting birds may occur, the applicant: 1) shall avoid removing potential nesting riparian vegetation from March 15 through July 30, or 2) shall survey all potential nesting riparian vegetation within the project site for active bird nests. If an active bird nest is located, the nest site shall be flagged or staked a minimum of 50 meters in all directions, and this flagged zone shall not be disturbed until the nest becomes inactive.
- h. Avian Mortality Monitoring. In an effort to contribute meaningful data regarding the effects of industrial-scale photovoltaic solar projects on migratory birds and lake effect, prior to issuance of a grading permit for the project, the Applicant will submit an Avian Protection Plan to the County of San Bernardino and the U.S. Fish & Wildlife Service (USFWS) ensuring that any birds encountered dead or injured on the project site are documented. At a minimum, the plan will include the following elements:

1. Bird Encounter Protocol during Construction

This section of the plan will include a protocol to be used upon discovery of a dead or injured bird during project construction to ensure timely and consistent data collection. At a minimum, the plan will require the Applicant and on-site biological monitor to determine pertinent information, such as the following:

- The species, life stage (adult or juvenile), and sex (if practical) of the bird
- The likely cause of injury or death, if apparent; and,
- The approximate date of death, for individuals that have been dead for a period prior to discovery.

2. Construction-Phase Reporting Requirements

This section of the plan will require that avian injury/mortality data be compiled and transmitted to the County of San Bernardino and the USFWS on a periodic basis, and will specify the frequency and method by which this notification should be made. However, in the event that avian species listed as Threatened or Endangered under the Endangered Species Act are encountered, the plan will require that the USFWS be notified immediately. Additionally, the applicant will not destroy, collect, or remove bird remains from the site without first obtaining any required permits from the USFWS and/or California Department of Fish & Wildlife (CDFW).

3. Operations-Phase Mortality Monitoring

This section of the plan will require that the Applicant retain a qualified biologist to conduct periodic avian mortality monitoring during operations at the site, and will detail the methods by which this monitoring should be conducted. The plan will require monitoring for a minimum period of two years following completion of construction. A minimum of five monitoring events must be conducted during each year, and will be scheduled to coincide with peak migration periods. At least one monitoring event each year will be conducted during the winter months (November through January), to assess any mortality of wintering birds. If no substantial project-related injury or mortality of birds is occurring after two years, no further avian mortality monitoring shall be necessary.

4. Adaptive Management

This section of the plan will set forth a process through which changes to the monitoring schedule or methods may be implemented if warranted due to unforeseen circumstances or other factors. During the construction- and operations-phase avian mortality monitoring, the Applicant and monitoring biologist will keep the County of San Bernardino and USFWS informed of monitoring progress and will alert these agencies if it appears that changes to the monitoring schedule or methods are needed. If it is apparent that substantial project-related injury or mortality of birds may be occurring, or if there are substantial unresolved questions regarding the project's effects on avian species, then the monitoring period, methods, or frequency may be modified to address these concerns. In addition, if specific project elements are resulting in substantial avian injury or mortality, the plan will direct that the Applicant work with the USFWS to identify and implement reasonable measures to modify these elements in a manner that lessens the effects on migratory birds.

BIO-4: The operator/construction contractor shall relocate all SWMD species protected by the California Native Plants Act and the County of San Bernardino Code deemed suitable for transplanting by a qualified botanist/horticulturist. These plants will be used as landscaping onsite, be maintained in an onsite nursery area for future revegetation efforts or transported for use at another County facility.

BIO-5 Prior to disturbance of previously undisturbed land in Phases 2 and 3:

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- a. SWMD or Permittee shall survey areas to be disturbed and adjacent areas for burrowing owls in accordance with Department of Fish and Game Wildlife protocol. Results of the survey shall be documented and then reported to CDFGW for review. If forced dispersal is required it shall be completed consistent with Department of Fish and Wildlife DFG protocol.

The Burrowing Owl is protected under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13) and Sections 3503, 3503.5 and 3513 of the FGC, which prohibit take of all birds and their nests including raptors. Habitat assessments, surveys, impact assessments, and all associated reports for burrowing owl shall be completed following the recommendations and guidelines provided within the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012). It is the responsibility of the Permittee to ensure compliance with these laws for the entire Project site. The Permittee shall conduct a Burrowing Owl preconstruction take avoidance survey prior to ground disturbance. The survey shall be conducted within fourteen (14) days of ground disturbance and it will be conducted by a biologist knowledgeable of Burrowing Owl habitat, ecology, and field identification of the species and burrowing owl sign and in accordance with the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012). The survey shall consist of walking 20 meter belt transects throughout the entire Project site and adjoining areas within 150 meters, including areas that may be indirectly impacted by the Project, to identify the presence of Burrowing Owl habitat. A report summarizing the results of the survey shall be submitted to CDFW and San Bernardino County Land Use Services Department, Planning Division within 30 days following the completion of the survey and shall include all information as outlined in Appendix C of the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012). The previous field surveys have detected burrowing owls onsite. If surveys confirm additional owls onsite the CDFW will be notified to discuss recommended options to assist in the development of avoidance, minimization, and mitigation measures, prior to commencing Project activities.

- b. Burrowing Owl Relocation and Monitoring Plan: Due to the presence of burrowing owls onsite, the project proponent will need to submit a burrowing owl mitigation and relocation plan to the CDFW prior to ground disturbance. The plan will specify passive relocation methodology, the receiver site and habitat enhancements at the receiver site.

Level of Significance After Mitigation

The proposed project would comply with the above mitigation measures. **Less than significant.**

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No New Impact – See discussion is IV.a above.

SUMMARY OF FPEIR ANALYSIS

The Phase 3 site is traversed by desert washes that are characterized as "blue line" streams on the USGS Quad map. These washes do not contain riparian vegetation. The ephemeral flows associated with the desert climate create discernable channels but they do not support vegetation (wildlife habitat) that is distinct from the surrounding vegetation (creosote bush scrub). These washes appear to drain southeast from Quartzite Mountain located to the northwest. These washes drain into Bell Mountain Wash, which crosses the project site on the southeast side. They are not perennial, nor are there any perennial surface waters present within a one-mile radius of the site. They do not exhibit defined

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channel banks or other evidence of "ordinary high water marks" and, therefore, do not appear to meet federal criteria for jurisdiction as Waters of the U.S. Surface water in and around the landfill is ephemeral and occurs during and immediately following precipitation events. (Initial Study; FPEIR Section 2.72, Effects Found Not To Be Significant).

Lilburn Corporation prepared a jurisdictional delineation (JD) for the VSL that included all three phases of the project site (Lilburn, 2008). The original JD identified 30.26 acres of waters of the US & state within the entire landfill footprint. 11.52 acres of jurisdictional water were originally identified to be impacted by the development of the landfill. The County of San Bernardino completed a land transfer to the Bureau of Land Management (BLM) of 23 acres of drainages to cover the mitigation requirements. Twenty-three acres were mitigated specifically for desert wash habitat as mandated by the Biological Opinion (BO) from the United States Fish and Wildlife Service (USFWS) which fulfilled the permit requirements. The 23 acres were part of a larger 1,155 -acre transfer to BLM known as the "Black Hills Mitigation Land Transfer" of October 19, 1999. VSL was one of several landfills included in this mitigation package. As a result of the prior mitigation package, the FPEIR determined that there were no impacts to riparian habitat or other sensitive natural communities.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project proposes to build a photovoltaic solar energy plant on 57.6 acres, within the 90-acre Phase 3 expansion area of the landfill. The site has been previously fenced and the County previously certified the FPEIR for the entire landfill, including the Phase 3 area where the proposed solar facility is proposed. A 404 permit was obtained from the US Army Corps of Engineers for the Phase 1 portion of the landfill (ACOE Permit # SPL-2009-00910-GS; ACOE, 2011). The 404 permit covered approximately 2.41 acres of waters of the U.S. Additionally, a 1600 Streambed Alteration Agreement (SAA) and a 401 Regional Water Quality Control Board (RWQCB) permit were obtained. Both the 401 and 1600 permit included the entire landfill site, which was identified as 491 acres. However, the permits did not cover the proposed solar use. Therefore, the project proponent will seek an amendment to both the 401 and 1600 permit to cover the proposed solar use in these existing permits. Additionally, the project proponent will seek a 404 permit to cover the proposed fill of waters of the U.S. within the solar project footprint.

The original JD has since expired and Phoenix Biological Consulting (Phoenix) initiated a new JD within the Phase 3 expansion area of the VSL. The JD is provided in Appendix D of this Initial Study.

The site is located in an area characterized by isolated mountains surrounded by alluvial fans and broad alluvial plains. Quartzite Mountain is located just north of the site. No continuously flowing streams or water bodies are currently located within one mile of the site. The drainages on the site flow south and southeast to Bell Mountain Wash. The drainages are small and braided along the northern boundary. As the slope increases and the elevation on site drops towards Bell Mountain Wash the drainages become more incised and wider. At the southern end of the parcel boundary, some of the drainages are 15-20 feet wide and 5-20 feet deep. The Bell Mountain Wash drainage basin is a tributary of the Mojave River located approximately three miles southwest of the site. Surface water flowing in the vicinity of the site is normally ephemeral, occurring in intermittent washes during and immediately following precipitation events. Blue-line drainages are present on site, as depicted on the USGS topographic map for the area. Additionally, the USFWS National Wetlands Inventory was queried and the database indicates riverine-type drainages are located on the site. The site is located in the

Southern Lahontan Hydrologic Region and is part of the Bell Mountain Wash – Mojave River watershed (Mohave Hydrologic Unit 628, Upper Mohave Hydrologic Area) which drains into the Mojave River. The average annual rainfall in the Victor Valley is less than five inches. The greatest accumulation of rainfall occurs during the months of January, February and March.

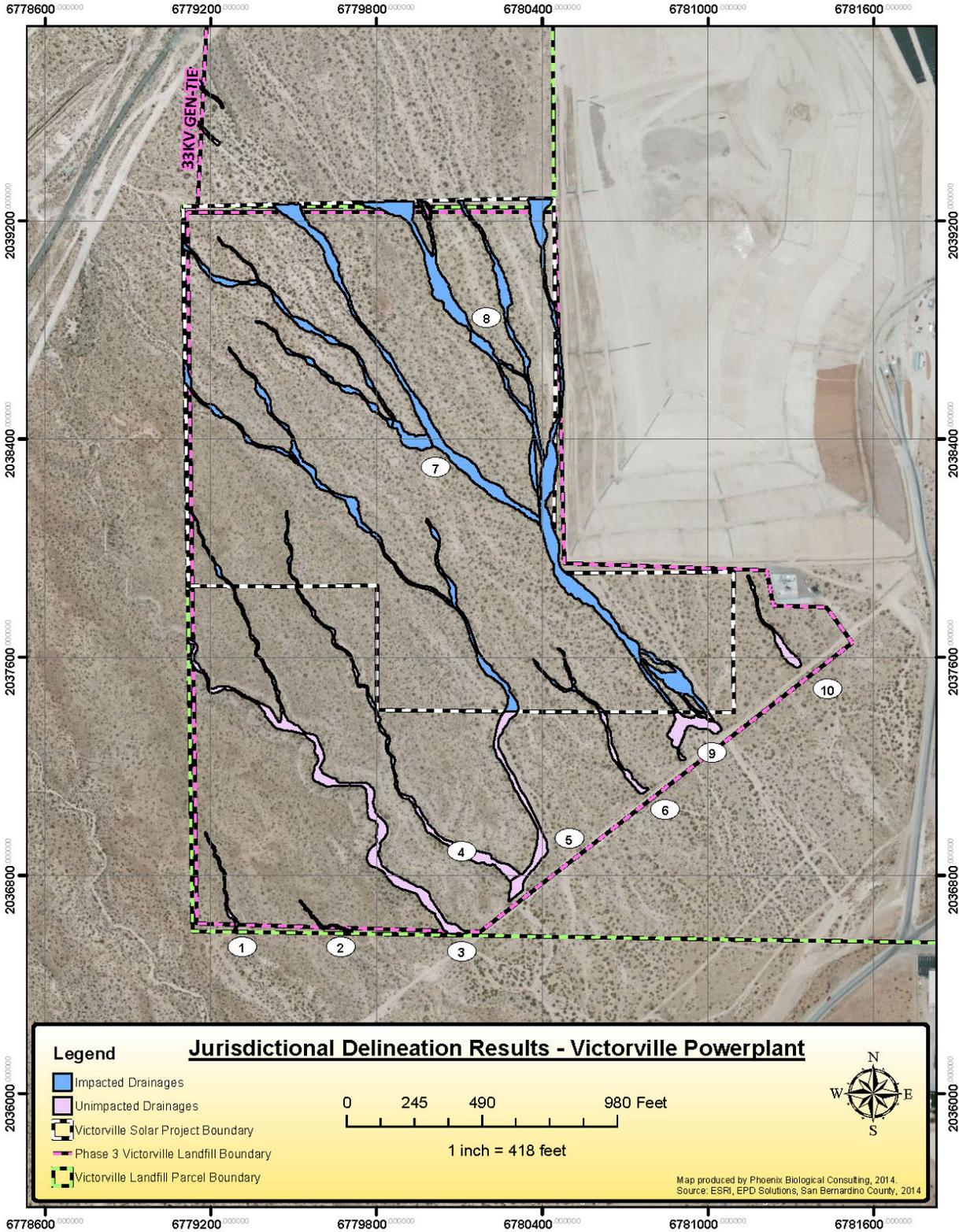
Various drainages traverse the site and will be permanently impacted by development of VSL Phase 3 and the solar project. Based on the JD report, and as shown in Table 6 (JD Table 1, *Drainages Occurring Onsite*, the Phase 3 portion of the landfill has 7.64 acres of Department of Fish and Wildlife (CDFW), United States Army Corps of Engineers (ACOE), and RWQCB jurisdictional drainages of which 5.14 acres will be impacted by the solar project. A map of drainages is provided in Figure 15, *Jurisdictional Delineation Aerial View*.

Mitigation Measures BIO-1 through BIO-5, discussed in Section IV.a above, would minimize impacts associated with the solar project on resources associated with the drainages. Therefore, no new impacts to any wildlife or habitat are anticipated, and as with the FPEIR, impacts remain less than significant.

Table 6- Drainages Occurring On-site

Drainage	Subgroup Drainage	Square Feet	Acres	Linear Feet	Jurisdiction
3	3A.1	2,013	0.046	336	CDFW, RWCQB, ACOE
4	4A.1	1,759	0.04	281	CDFW, RWCQB, ACOE
5	5A	6,743	0.155	526	CDFW, RWCQB, ACOE
5	5B	17,092	0.392	1278	CDFW, RWCQB, ACOE
5	5C.1	12,416	0.285	788	CDFW, RWCQB, ACOE
6	6A.1	3,457	0.079	474	CDFW, RWCQB, ACOE
7	7A	4,960	0.114	347	CDFW, RWCQB, ACOE
7	7B	875	0.02	207	CDFW, RWCQB, ACOE
7	7C	9,849	0.226	724	CDFW, RWCQB, ACOE
7	7D	6,568	0.151	615	CDFW, RWCQB, ACOE
7	7E	6,677	0.153	1579	CDFW, RWCQB, ACOE
7	7F	41,997	0.964	1212	CDFW, RWCQB, ACOE
8	8A	38,047	0.873	335	CDFW, RWCQB, ACOE
8	8B	16,677	0.383	1008	CDFW, RWCQB, ACOE
8	8C	946	0.022	123	CDFW, RWCQB, ACOE
9	9A.1	53,746	1.234	2068	CDFW, RWCQB, ACOE
TOTAL		223,822	5.138	11901	

Figure 15: Jurisdictional Delineation Aerial View



- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The Initial Study determined that expansion of the VSL would not have substantial adverse effects on federally protected wetlands as defined by Section 404 of the Clean Water Act, because none exist on the project site. (FPEIR Section 2.72, Effects Found Not To Be Significant; EIR Section 4.3, Biological Resources).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is vacant and is a 57-acre part of the 90-acre future VSL Phase 3 expansion area analyzed in the FPEIR. The new JD confirmed that the solar project would not have adverse effects on federally protected wetlands as defined by Section 404 of the Clean Water Act, because none exist on or adjacent to the project site. Therefore, no new impacts to any wetland, wildlife, or habitat are anticipated as a result of the solar project.

- 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?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

Impact BIO-3 states that development of the project site would interfere with the movement of resident wildlife species common to the area. In addition to the loss of habitat, fencing the site would eliminate movement of wildlife to and from the site and around the site. The FPEIR noted that development of the landfill would occur over a period of 76 years so not all land would be disturbed at once. In fact, during the first 40 years of the proposed landfill project, landfilling would occur in areas previously disturbed, in areas formerly used for cover material and domestic septage impoundments (i.e., liquid or solid material removed from a septic tank, surface impoundment, injection well, or waste pile).

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

Mitigation Measure BIO-3 (see Section IV.a above)

FPEIR Level of Significance After Mitigation

The FPEIR concluded that each sequence of Phase 3 would be fenced to isolate the excavation area from the remaining areas yet to be disturbed. This would keep wildlife away from the construction

equipment. Surveys conducted prior to moving into a subsequent phase of Phase 3 would determine if additional precautions should be taken. These would include moving tortoises outside the fence line (see Impact BIO-1). Therefore, this impact can be mitigated to a less than significant level.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project site is vacant and is part of the proposed future VSL Phase 3 expansion area. The project proponent is proposing to build a photovoltaic solar energy plant on 57.6 acres, within the 90-acre Phase 3 expansion area of the landfill.

The site is bordered to the east by Phase 1 of the VSL. Open creosote scrub is present on the south, west, and northern edges. The surrounding land ownership includes Bureau of Land Management (BLM) public land and private land. Excluding the VSL, the surrounding land is undeveloped creosote scrub. Both improved county roads and unimproved roads border the site on all sides. There are trace amounts of refuse dispersed throughout the site and trace amounts of ground disturbance, presumably occurring before the site was fenced. However in the areas surrounding the site there is a fair amount of refuse and disturbances due to transmission line/railroad and high pressure gas transmission line right-of-ways and off-highway vehicle (OHV) activity driving on two-track roads and using desert washes as de facto roads. The land to the west is open creosote scrub for approximately 3 miles, to the north there is habitat continuity for >10 miles, although topography may limit desert tortoise dispersal to some degree.

Wildlife movement through the project site is already inhibited by desert tortoise fence that has been installed around the perimeter of the landfill, including the entire 90-acre Phase 3. The existing desert tortoise fencing already prevents wildlife from entering the 90-acre Phase 3 site. The proposed project would implement Mitigation Measures BIO-1 through BIO-5. As required by BIO-3, the proposed solar project would conduct clearance surveys in areas scheduled for disturbance and at the end of each workday, an escape ramp shall be placed at each end of any open trenches or pits to allow any animals that may have become entrapped in the trench to climb out overnight. A new 8-foot high chain link fence with slats that incorporates desert tortoise fencing along its base would be installed around the 57.6-acre solar project site. The open space areas surrounding the VSL remain unfenced and allow for wildlife movement. The surrounding open space areas provide connectivity for species to move and disperse through the area. Due to the adjacent landfill activities, any loss of connectivity as a result of the fencing around the 57.6-acre solar field is not expected to be a significant impact. Therefore, as with the FPEIR, this impact can be mitigated to a less than significant level. There are no new impacts compared to those of the expansion of Phase 3 of the VSL.

e) Conflict with any local policies or ordinances protecting biological resources?

No New Impact-

SUMMARY OF FPEIR ANALYSIS

Impact BIO-4 states that development of the VSL expansion would result in the taking of desert plant species protected by the California Desert Native Plants Act and the County of San Bernardino Code, Title 8, Division 8, Chapter 88.01, Section 88.01.060 Desert Native Plant Protection. Although the project site has been disturbed by off-road vehicle use, domestic sheep grazing, transmission line and pipeline easements, etc., there are areas that are less disturbed or have not been disturbed that support desert vegetation including Joshua trees, cholla, and beavertail cactus. The County of San Bernardino Development Code includes a chapter on Desert Native Plant Protection. Protected plants include Joshua Trees and creosote rings, among other plants. In addition, the State of California Food and Agriculture Code (Section 8000 1-80006) includes the California Desert Native Plants Act. Under this act, all species of cacti are protected. Under both regulations, desert native plants cannot be harvested or otherwise removed without a permit.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

Mitigation Measure BIO-4 (see Section IV.a above)

FPEIR Level of Significance After Mitigation

Implementation of mitigation measure BIO-4 will reduce the impacts to plant species protected by the California Desert Native Plants Act and the County of San Bernardino to less than significant. The project includes designating a landscape area along the southeast property boundaries to act as a buffer zone. Any species protected by these regulations that are deemed suitable for transplant can be relocated to the landscape area or another area onsite.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The terrain of the 90-acre Phase 3 site includes a mix of small rolling hills, braided washes and some areas of incised (>15 feet) desert washes. The vegetation community within the site is comprised of creosote bush scrub (*Larrea tridentate*)/Bursage (*Ambrosia dumosa*) scrub with low density Joshua tree (*Yucca brevifolia*). Dominant perennials include creosote (*Larrea tridentate*), burro-weed (*Ambrosia dumosa*), Joshua tree (*Yucca brevifolia*) and white ratany (*Krameria grayia*). Annuals were not readily indefinable due to the timing of the surveys (December 5, 2013, February 14 and February 15, 2014). The entire list of vascular plants detected during the survey can be found in Appendix B of this Addendum, in Table 6.

There are no other types of habitat present on site except for creosote/bursage scrub and there are no sensitive habitat types such as mesquite bosques, riparian habitat or fan palm oasis. Joshua trees and Mohave yuccas are present in low density on site. The protected desert plants would be recorded and relocated prior to disturbance. The soils onsite are Nebona-Cuddeback and Cajon-Arizo Complex which are characterized as stabilized, well-drained sandy-loamy and gravelly sand in alluvial fans (NRCS, 2014). The soils originate from the Quartzite granitic mountains to the north-northwest of the site.

As the terrain on the project site is varied, grading will be required to create a uniform, relatively flat surface for installation of the solar panels, other equipment and internal access roads. Grading activities would disturb desert vegetation. The proposed project would comply with mitigation measure BIO-4 and any species protected by existing regulations that are deemed suitable for transplant can be relocated to the landscape area or another area onsite. Implementation of mitigation measure BIO-4 will reduce the impacts to plant species protected by the California Desert Native Plants Act and the County of San Bernardino to less than significant. Implementation of the solar project would not result in new impacts compared to those analyzed in the FPEIR for the expansion of the VSL.

- 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The project site is located in desert tortoise critical habitat, a formal designation of lands deemed necessary for the recovery of the federally listed desert tortoise. The project area is located within the Mojave Desert, which provides habitat for a number of threatened or endangered species. The BLM is preparing the West Mojave Coordinated Management Plan (West Mojave Plan), which will be a

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comprehensive interagency program for the conservation of biological resources. According to the 1999 Current Management Situation (BLM, March 1999), upon adoption, the West Mojave Plan will serve as a regional Habitat Conservation Plan (HCP).

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

FPEIR Level of Significance After Mitigation

Less than significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The Record of Decision for the West Mojave Plan /Amendment to the California Desert Conservation Area Plan was signed in March 2006. Other agencies did not adopt the habitat conservation plan proposed in the West Mojave Plan to cover their jurisdictions, and therefore the adopted plan only applies to public lands. Presently, there is no approved HCP/NCCP plan for the desert portion of San Bernardino County. The San Bernardino Valley-wide Multi Species Habitat Conservation Plan (MSHCP) was not adopted and is not applicable. The solar project would therefore not conflict with such plans. Impacts remain less than significant. Implementation of the solar project would not result in new impacts compared to those analyzed in the FPEIR for the expansion of the VSL.

Project Design Features (PDFs) and/or Policies, Plans and Procedures (PPPs)

PDFs

PDF-BIO1 Desert tortoise fencing shall be maintained around the 57.6-acre solar project site.

PPPs

The following PPPs are actions mandated by federal, state, or local regulation, or are incorporated into the project by the applicant, and would reduce impacts related to air quality resources. These actions will be included in the project's mitigation monitoring and reporting program.

PPP-BIO1 Habitat assessments, surveys, impact assessments, and all associated reports for burrowing owl shall be completed following the recommendations and guidelines provided within the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012).

Mitigation Measures

No additional mitigation measures are necessary because no new significant impacts have been identified.

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

Explanation of Checklist Responses

Would 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The Initial Study determined that no historical resources are known within the undeveloped portion of the site. A study conducted by Archeological Associates in June 1997 included a search of records at the Archeological Information Center at the San Bernardino County Museum, which indicated no prehistoric archeological resources have been recorded within the project site. However, one historical resource, PSBr38H, the Boulder Dam-San Bernardino 115kV electrical transmission line, is documented within the site. The transmission line was built in the early 1930's to supply power from the Boulder Dam project and is eligible for listing in the National Register of Historical Places. Project-related activities are not expected to adversely affect this resource, and no mitigation measures were recommended in the study report completed for the Victorville Sanitary Landfill (FPEIR Section 2.72, Effects Found Not To Be Significant). The results of the field reconnaissance and records search for archaeological resources concluded that project related activities would not adversely affect the Boulder Dam-San Bernardino transmission line: PSBr-38H. The field investigation was also entirely negative and no additional work was recommended. (FEIR Section 4.4, Cultural)

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is vacant and is part of the future VSL Phase 3 Expansion Area, which was included as part of the FPEIR. A cultural resources records search was conducted BCR Consulting in August 2014 at the San Bernardino Archaeological Information Center (SBAIC). The records search included a review of all recorded historic and prehistoric archaeological sites, as well as recorded built environment resources within one mile of the project site. The research also reviewed known cultural resource reports completed in the vicinity. Results indicate that 27 cultural resource studies have taken place resulting in 17 cultural resources recorded within one mile of the project site. Five of the previous 27 studies have occurred within or partially within the project site, resulting in two cultural resources previously recorded within its boundaries. The resources located within the project site boundaries include the historic-period Stoddard Wells Road (designated CA-SBR-9360), and a historic-period transmission alignment (P-36-10315). CA-SBR-9360 was recorded and evaluated and found not eligible for listing in the California Register of Historical Resources (California Register) in 2006 (Hathaway 2006), and P-36-10315 was recorded but not evaluated for California Register eligibility in 2011. Proposed solar project activities will not directly impact the two historic-period resources, no additional or updated evaluation of these resources is warranted.

A sacred lands record search was requested by BCR Consulting from the Native American Heritage Commission (NAHC) on July 29, 2014. The Commission responded on August 5, 2014 that there are no known/known sacred lands within a one-half mile of the Project Area. The NAHC requested that 7 Native American tribes or individuals be contacted for further information regarding the general project vicinity. BCR Consulting subsequently sent letters to the 11 Native American contacts on August 8, 2014, requesting any information related to cultural resources or heritage sites within or adjacent to the project area. None of the contacts responded.

Therefore, no additional impacts to cultural resources resulting from the project are anticipated. Implementation of the solar project would not result in significant new impacts compared to those analyzed in the FPEIR for the expansion of the VSL.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that excavation in conjunction with development of the landfill has a high potential to adversely impact significant nonrenewable paleontologic resources present within the boundaries of the Victorville Landfill property. Potential paleontological resources could be adversely impacted with site excavation and grading.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

CR-1: A qualified vertebrate paleontologist must develop a program to mitigate impacts to nonrenewable paleontologic resources. This mitigation program should be consistent with the provisions of the California Environmental Quality Act, as well as with regulations currently implemented by the County of San Bernardino and the proposed guidelines of the Society of Vertebrate Paleontology. This program should include, but not be limited to:

1. Pre-excavation sampling of the observed Neotoma middens, to better determine their potential antiquity;
2. Intermittent (1 day/month) monitoring of excavation in areas identified as likely to contain paleontologic resources by a qualified paleontologic monitor. The monitor should be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.
4. Identification and curation of specimens into a museum repository with permanent retrievable storage.
5. Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the San Bernardino County Museum, will signify completion of the program to mitigate impacts to paleontologic resources.

FPEIR Mitigation Measures

With the implementation of the mitigation measure, any paleontological resources discovered within the projects boundaries during development will be inventoried and salvaged, and preserved for any necessary further investigation. The impacts to the paleontological resources would not be significant with implementation of mitigation measure CR-1.

FPEIR Level of Significance After Mitigation

Less than significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

A paleontology literature and records review was conducted by Division of Geological Sciences of the San Bernardino County Museum (SBCM), (Included as Appendix E herein). The results of the literature review confirm that excavation into undisturbed Pleistocene sediments has high potential to impact paleontologic resources. Previous geologic mapping of the region indicates that the proposed project is situated upon Pleistocene older alluvium (= unit Qo). This alluvium has high potential to contain significant nonrenewable paleontologic resources, depending upon its lithology, and so is assigned high paleontologic sensitivity.

The proposed project requires grading activities over 57.6 acres of the 90-acre Phase 3 expansion site. Grading activities could impact undiscovered paleontologic resources. The proposed project would implement PFEIR mitigation measure CR-1 requiring a monitor. County Development Code policies related to paleontologic mitigation programs will also be applied to paleontological resources that are encountered during construction.

The overall development would not increase impacts to paleontological resources in comparison to the project analyzed in the FPEIR. The VSL FPEIR found Phase 3 expansion area impacts to paleontologic

resources to be less than significant and these impacts were adequately addressed in the FPEIR. The overall paleontologic impact of the interim solar project would be similar to, or less than the impact of the project approved by the FPEIR because of the depth of excavation required for the Phase 3 expansion area is 180 to 200 feet below grade, while the depth of excavation for the solar project is six feet. Approximately 188,346 cubic yards (cy) of cut and 172,863 cy of fill materials is expected during grading over up to 57.6 acres. The remaining 15,483 cy of cut would be spread around the site. Cut and fill is expected to be balanced onsite. Therefore, no new significant impacts damaging paleontologic resources would occur as a result of the proposed project.

d) Disturb any human remains, including those interred outside of formal cemeteries?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

With implementation of existing regulations, impacts were considered less than significant.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

As discussed in the PFEIR, the project area is not known to be the location of a prehistoric or historic-period human burial or cemetery and no human remains have been identified within the project area. If human remains are unearthed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. The Coroner must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the NAHC, who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC. Therefore, the proposed project is consistent with, and does not require any changes to the PFEIR.

Project Design Features (PDFs) and Policies, Plans and Procedures (PPPs)

PDFs

No PDFs are applicable to cultural resources.

PPPs

The following PPPs are actions mandated by federal, state, or local regulation, or are incorporated into the project by the applicant, and would reduce impacts related to cultural resources. These actions will be included in the project's mitigation monitoring and reporting program:

PPP-CR1. Compliance County of San Bernardino (Development Code §82.20.040). The development code defines a qualified vertebrate paleontologist as meeting the following criteria:

Education: An advanced degree (Masters or higher) in geology, paleontology, biology or related disciplines (exclusive of archaeology).

Professional experience: At least five years professional experience with paleontologic (not including cultural) resources, including the collection, identification and curation of the resources.

The County of San Bernardino (Development Code §82.20.030) requires that paleontologic mitigation programs include, but not be limited to:

(a) Field survey before grading. In areas of potential but unknown sensitivity, field surveys before grading shall be required to establish the need for paleontologic monitoring.

(b) Monitoring during grading. A project that requires grading plans and is located in an area of known fossil occurrence, or that has been demonstrated to have fossils present in a field survey, shall have all grading monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Paleontologic monitors shall be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring is not necessary if the potentially-fossiliferous units described for the property in question are not present, or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources.

(c) Recovered specimens. Qualified paleontologic personnel shall prepare recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Preparation and stabilization of all recovered fossils is essential in order to fully mitigate adverse impacts to the resources.

(d) Identification and curation of specimens. Qualified paleontologic personnel shall identify and curate specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum, which is an established, accredited museum repository with permanent retrievable paleontologic storage. These procedures are also essential steps in effective paleontologic mitigation and CEQA compliance. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not considered complete until curation into an established museum repository has been fully completed and documented.

(e) Report of findings. Qualified paleontologic personnel shall prepare a report of findings with an appended itemized of specimens. A preliminary report shall be submitted and approved before granting of building permits, and a final report shall be submitted and approved before granting of occupancy permits. The report and inventory, when submitted to the appropriate Lead Agency along with confirmation of the curation of recovered specimens into the

collections of the San Bernardino County Museum, will signify completion of the program to mitigate impacts to paleontologic resources.

Mitigation Measures

No new mitigation measures are necessary because no new significant cultural resources impacts have been identified.

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

Explanation of Checklist Responses

Would the project:

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The VSL expansion project site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest Alquist-Priolo Zone is associated with the Helendale fault approximately seven miles northwest of the landfill. The geotechnical hazards investigation for the VSL expansion indicated no Holocene faulting was found within the landfill expansion areas. Two anomalies were identified along the seismic reflection lines outside the expansion area but could not be related to any surface features or linears but instead may be caused by discontinuous caliche cementing in the subsurface. The investigation of the expansion area indicated that no potential for rapid geologic change or that Holocene faulting is present onsite. No evidence of ground rupture was observed in the vicinity of the expansion area. Alluvial fan deposits are structurally unformed, with no direct evidence of faulting such as displacement, rupture of soil, or cementation and no indirect evidence such as springs, offset of drainages, or linear topographic features. No features were found to be associated with the vegetation lineaments identified on aerial photos and subsequently checked in the field. A review of the data generated by the seismic-reflection survey indicated no offset or reflector beds within the expansion areas. The undisturbed nature of the surface, therefore, precludes active faults in the landfill expansion areas.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

No known faults cross the project site and the site is not located within an Alquist-Priolo Zone. Even so, the site is located in southern California, which is a seismically active area and is likely to experience a seismic event. Faults in the vicinity of the site include the Helendale fault approximately seven miles northeast. The North Frontal Fault Zone is located 15 miles southeast of the site. Other faults in the vicinity include the Cleghorn fault and Squaw Peak fault. Because the proposed project is not located within an Alquist-Priolo Earthquake Fault Zone, there is no impact associated with the potential for rupture of a known fault within such a zone or to expose people or structures to adverse effects. Therefore, overall impact of the interim solar project would be similar to the impact of the VSL expansion project approved by the FPEIR.

ii. ***Strong seismic ground shaking?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR Level of Significance Before Mitigation

Not applicable.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site lies within a region of active faulting and seismicity in Southern California. Potential regional sources for major ground-shaking hazards Helendale fault approximately seven miles northeast and the North Frontal Fault Zone, 15 miles southeast of the site. The project site could be subjected to moderate to strong ground shaking during the life of the proposed solar project. The project would be required to comply with California Building Code (CBC) seismic safety regulations. Development of an unmanned solar project would not expose people or structures to substantial hazards arising from ground shaking, after compliance with existing regulations. Hazards from ground shaking would be reduced to less than significant. Therefore, overall impact of the solar project as an interim use within the Phase 3 expansion area would be similar to the impact of the VSL expansion project approved by the FPEIR. There would be no new impacts with implementation of the proposed solar project.

iii. Seismic-related ground failure, including liquefaction?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

Liquefaction is a concern in areas that have a shallow groundwater level and a low drainage condition. Depth to groundwater beneath the site ranges from 100 feet below the surface on the northwest side to approximately 206 feet below the surface in the southeast. The FPEIR determined that the coarse, dry, and weak to strong cemented nature of the alluvial deposits and the deep water table which exists more than 100 feet below the surface prevent any possible liquefaction from occurring in the area.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The PFEIR concluded that the potential for liquefaction in the VSL expansion area is low due to the lack of groundwater in the upper 100 feet of the ground surface. The proposed solar project would occupy 57.6 acres of the overall 90-acre Phase 3 expansion area analyzed in the prior environmental document and does not include any habitable structures. Based on the regional geology and the PFEIR, the risk of ground failure, including liquefaction-induced settlement, is remote. Furthermore, the solar project would be required to comply with CBC seismic safety regulations. For these reasons, there is a less than significant impact associated with the potential for seismic-related ground failure, including liquefaction. Therefore, the proposed solar project is consistent with the conclusions of the FPEIR and impacts would remain less than significant. There would be no new impacts.

iv. Landslides?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The generally low topographic relief, nearly flat-lying beds, and coarse, partially caliche-cemented deposits preclude any potential for landslides originating on the VSL expansion area. The stability of the soils is illustrated by the 120-foot-deep borrow pit with almost 1- to 1-slopes. No slope failures have occurred on steep-cut slopes during several years of wet and dry seasons. The only possible off-site source for a landslide is to the north from Quartz Mountain, thousands of feet up the alluvial fan from the VSL expansion area. There is no evidence of landslides reaching the area in the geologic past, but if a major landslide were to occur in the Quartzite Mountain that is composed primarily of competent rock with thin soils, at most a resulting debris or mudflow might reach the VSL expansion area. The FPEIR concluded that drainage control structures that will be built for surface runoff control would handle any such impact on the landfill.

The FPEIR also analyzed the stability of fill slopes. Impact GEO-1 stated that expansion of the VSL includes excavation of phases to depths up to 200 feet below existing grade and fill in phases up to 220 above existing grade. Excavation could create unstable slopes in the pits created for landfilling. Development of a landfill mound could create unstable fill slopes. This was a potentially significant impact. A slope stability analysis was prepared. The Maximum Probable Earthquake (MPE) used to evaluate slope stability was a Mw 7.6 event on the San Andreas fault at a point 24 miles south of the site. If the factor of safety is less than 1.5, additional displacement analyses must be performed to evaluate the amount of displacement that could occur in the landfill cut slopes or fill slopes and containment system under seismic loads. The procedure for the analyses is based on methods for determining displacement of a rigid block resting on a sliding plane subjected to earthquake type motion. This is based on the premise that the sliding block will undergo displacement only during periods when the maximum ground acceleration exceeds the yield acceleration. The analysis for the cut slopes with the proposed gradient of 2H:1V (horizontal to vertical ratio) indicated that slopes between benches have a calculated factor of safety of 1.5 and the calculated factor of safety for the overall slope (including benches) was calculated to be approximately 1.9. Pseudo static analysis indicated a yield acceleration of 0.18g for slopes between benches and 0.27g for the gross slope. The maximum ground acceleration during the postulated MPE on the San Andreas Fault is 0.18g. As a result, no significant induced permanent displacement of the cut slopes is anticipated to occur. Therefore, slopes were considered to be stable at an overall slope gradient of 3.5H:1V.

Because final fill slope heights and configurations were not established prior to undertaking the slope stability analysis, an analysis was conducted to determine the run-out lengths (i.e. the horizontal length of the base liner) required to obtain a minimum calculated factor of safety of 1.5 for various slopes assuming that solid waste would be placed at 3H:1V with an overall slope gradient of 3.5H:1V. The analyses indicated that a minimum run-out length of 3.85 times the height of the slope would be required to obtain a minimum calculated factor of safety of 1.5. Pseudo-static analysis for these slopes indicated a yield acceleration of 0.077 g so an evaluation of seismic-induced permanent displacement was done. This evaluation indicated displacements of less than two inches for the planned fill slopes with the run-out ratio of 3.85 times the height of the slope.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

GEO-1: Planned cut slopes shall be developed at gradients of 2H:1V between benches for an overall slope gradient of 2.5H:1V. Fill slopes shall be developed at gradients of 1H:1V between benches with an overall slope gradient of 3.5H:1V. In developing the final fill slope configurations, the minimum run-out ratio of 3.85 times the height of the slope shall be maintained at all times.

FPEIR Level of Significance After Mitigation

On the basis of the slope stability analysis conducted for the VSL expansion project, cut slopes with a gradient of 2H:1V between benches are adequately stable for static and seismic loading conditions. For fill slopes, the proposed 3H:1V between benches is satisfactory if a minimum run-out ratio of 3.85 is maintained. For the seismic conditions the permanent seismic induced displacements have been estimated to be well within the acceptable limits. Therefore, slopes would be stable and this impact would be less than significant.

FPEIR Addendum No.1

An Addendum to the 2004 FPEIR (Addendum No. 1) was prepared to analyze the environmental impacts of a revised slope ratio increase from 3.5H:1V (horizontal to vertical) ratio to a 2.5:1 ratio for Phase 1A, and a slope ratio correction to show previously permitted and constructed slopes adjacent to Phase 1A of the VSL lateral expansion project. Addendum No. 1 was approved August 2007.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

No evidence of slope failure is visible or has occurred in the borrow area, which maintains almost a 1H:1V (horizontal to vertical) slope gradient. The nearest possible natural seismically induced landslide potential area exists in the north from Quartzite Mountain, which is several thousand feet northwest of the landfill site. No new impact would occur as a result of a seismically induced landslide from Quartzite Mountain by siting the solar project within the Phase 3 expansion area.

The 57.6—acre solar site is adjacent to an artificial slope, the Phase 1 landfill mound, located to the northeast. The risk of seismically induced landslides was analyzed in the FPEIR. The impact was considered less than significant if minimum run-out ratio of 3.85 is maintained. The artificial slope adjacent to the solar project site was designed in accordance with Addendum No. 1. All future slopes within the VSL would comply with GEO-1. The construction and operation activities associated with the proposed solar project would not undermine the slope stability of the Phase 1 mound. Therefore slopes would be stable and this impact would be less than significant. The solar project would not result in new significant impacts.

b) Result in soil erosion or the loss of topsoil?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR Impact GEO-2 states that expansion of the VSL includes excavation in phases to depths up to 200 feet below existing grade and the construction of landfill phases to heights of up to 220 feet above grade. These activities would expose soils to wind and water erosion during site development and operation. This was considered a potentially significant impact.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

In addition to mitigation measures identified in PFEIR Section 4.2 - Air Quality, the following mitigation measures would be applied to excavation and landfill activities at the site.

GEO-2: The County shall update its Dust Control Plan for the landfill site to include the additional landfill areas. In areas under excavation, water shall be applied at regular intervals throughout the day (determined by daily wind conditions) or dust palliatives should be applied on areas that are not intended to be disturbed over a longer period of

time. Excavated areas that are not ready to be lined and filled that would be exposed for periods greater than 180 days shall be seeded with a grass mixture to reduce wind erosion until liner construction begins.

FPEIR Level of Significance After Mitigation

With the implementation of mitigation measure GEO-2, any erosion impacts caused by wind and water will be mitigated to a less than significant level. This will assure a minimal soil erosion impact to the surrounding area. FPEIR Section 4.2 - Air Quality includes mitigation measures to reduce soil erosion impacts to air quality and Section 4.7- Hydrology and Water Quality includes mitigation measures to reduce soil erosion impacts to water quality.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Development of the solar project would not cause substantial soil erosion. Erosion is the movement of soil and rock from place to place. Erosion occurs naturally by agents such as wind and flowing water; however, grading and construction activities can cause greatly increased erosion if effective erosion control measures are not used. Common means of soil erosion from construction sites include water, wind, and being tracked off-site by vehicles. Substantial erosion from the site could occur during project operation if effective erosion control measures were not used.

The potential for erosion or loss of topsoil would be negligible with development and implementation of erosion control Best Management Practices (BMPs) required of the Stormwater Pollution Prevention Plan (SWPPP) for any development on the project site. An Erosion Control Plan will be prepared prior to construction as part of the overall SWPPP to reduce sedimentation, erosion, and other water quality impacts associated with construction. The SWPPP will establish BMPs for erosion and sediment control and non-storm water management during construction activities. Additionally, a Water Quality Management Plan (WQMP) will be prepared to prevent stormwater pollution and manage urban runoff after construction. During construction, the project would be required to comply with the MDAQMD Fugitive Dust restrictions (Rule 403.2) Project site grading and infrastructure would be designed to County standards to minimize erosion potential.

Preparation and implementation of a SWPPP with an Erosion Control Plan and preparation and implementation of a WQMP are required by existing regulations, as is compliance with MDAQMD Fugitive Dust restrictions (Rule 403.2). Compliance with standard conditions and BMPs required by local and State regulation, would reduce any potential impacts to below a level of significance. Soil erosion impacts were adequately addressed in the FPEIR. The overall soil erosion and loss of top soil impacts of the interim solar project would be similar to, or less than those of the landfill expansion project approved by the FPEIR. Therefore, the proposed solar project is consistent with the conclusions of the FPEIR. Soil erosion impacts remain less than significant.

- 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

A Geologic Hazards Investigation Report was prepared for the VSL expansion area in April 2001. The report concluded the landfill was located on a stable alluvial fan deposit with no potential for rapid geologic change including expansion, subsidence, or collapse. Findings of the report were incorporated into the FPEIR. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Impact GEO-3 states that the project site is crossed by numerous drainages that could erode the landfill during storm events when water flows through them to Bell Mountain Wash. This was considered a potentially significant impact.

Water erosion is not generally a severe problem due to the low annual rainfall (average less than five inches per year). However, there are occasions, particularly during the summer months when thunderstorms can drop several inches of rain over a short duration, causing flash flooding. There are two issues associated with water erosion. The first is the drainage that could flow from offsite to onsite during a storm event. The second issue is the potential impact of heavy precipitation to damage the daily or intermediate cover of the landfill.

There are three blue line streams that cross the project site that during storm events would carry flows across the site to Bell Mountain Wash. SWMD would be required to reroute the natural drainages around the landfill site to allow storm flows to continue to enter Bell Mountain Wash. To control stormwater run-on and reroute it around the landfill, as a project design feature, SWMD has proposed a perimeter run-on control embankment constructed of rip-rap. The rip-rap embankment constructed at a 2H:1V slope around the perimeter of the landfill would be the outer embankment that supports the perimeter road. The inner embankment would be the onsite drainage channel that diverts stormwater runoff from the landfill, around the landfill and into a desiltation/detention basin that would be located at the base of the landfill adjacent to the southerly boundary of Phase 3.

The FPEIR concluded that with construction of the perimeter run-on control embankment, erosion associated with existing drainages would be eliminated and storm water flows would continue to flow into Bell Mountain Wash. No mitigation measures were required and impacts were considered less than significant.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Lateral Spreading, Liquefaction, and Landslides

Lateral Spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer, due to both ground shaking and gravity. As discussed in Section IV.a.iii, the liquefaction hazard onsite is considered low, the hazard of lateral spreading onsite would also be low and would be a less than significant impact. As discussed in Section IV.a.iv, slopes would be stable and this impact would be less than significant.

Subsidence and Collapsible Soils

Subsidence depends mostly on the degree of compaction achieved during construction. Subsidence may occur onsite in colluvial areas as a result of compaction below the bottom of soil removals, or due to the weight of added fill soils. The proposed project involves limited grading and does not include the removal and recompaction of artificial fill material or substantial soil compaction. A collapsible soil shrinks considerably when wetted, when a load is placed atop the soil, or under both conditions; soil collapse is also referred to as hydro-collapse. Such shrinkage can damage structures built on the soil; or structures such as pipelines built within the soil.

The course, clast-supported, and well-compacted nature of the alluvial deposits in the VSL project area eliminates any potential for ground subsidence in the landfill expansion areas, including Phase 3. The

deep water table in the vicinity and caliche cementing also reduce the potential for subsidence. The majority of structures at the project site (solar panels) would use pile-driven foundations that are not affected by near-surface conditions. As required the CBC, a geotechnical report will be prepared and shall include design recommendations for shallow foundations that would, if implemented, reduce the risk of structural damage from collapsible soil to below a level of significance. Examples of these design recommendations include moisture conditioning and compaction of soils below foundations to achieve targeted moisture content, density, and compaction levels, which would be determined during grading activities through soil testing by the project's geotechnical engineer. With implementation of existing regulations, the risk associated with unstable soils causing harm to humans or structures is below a level of significance. The FPEIR and subsequent addenda concluded that the VSL expansion project would be required to comply with State requirements and that no impacts would occur. Therefore, the proposed solar project is consistent with the conclusions of the FPEIR and would not result in significant new impacts compared to the landfill project related to on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

d) Be located on expansive soil, as defined in the California Building Code, creating substantial risks to life or property?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The PFEIR concluded that soils within the area have been identified as a soil type with low shrink-swell potential and a slight potential for water erosion. No mitigation measures were recommended for reducing hazards from expansive soils for construction of the VSL expansion, and no substantial risks to persons or structures would occur. Impacts were considered less than significant.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

As discussed above, a geotechnical report will be required prior to project implementation, which may recommend shallow footings be a minimum 12 inches wide and trenched through any potentially expansive soil to be a minimum of 12 inches into non-expansive native soil or compacted fill. With the application of design recommendations consistent with the geotechnical report and CBC, impacts associated with potentially expansive soils would continue to be less than significant. Therefore, the proposed project is consistent with the conclusions of the FPEIR. There would be no new impacts.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR concluded there are no existing or proposed septic tanks or alternative waste water disposal systems at the VSL expansion site.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

During construction, wastewater would be stored in portable restrooms with waste disposed of offsite at a licensed location. During operations, the site would be unmanned and there would be no wastewater service. No septic system or alternative wastewater disposal system is proposed during operations. Therefore, there is no impact related to soils being incapable of adequately supporting the use of septic tanks. The proposed solar project is consistent with the conclusions of the FPEIR. There would be no new impacts.

Project Design Features (PDFs) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to geology and soils.

Mitigation Measures

No mitigation measures are necessary because no new significant impacts related to geology and soils have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***
- b) ***Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

No Impact –

SUMMARY OF FPEIR ANALYSIS

Since the certification of the FPEIR in 2004, methods for analyzing greenhouse gas emissions have become available. Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of greenhouse gas (GHG) emissions. The VSL FPEIR did not analyze impacts from GHG emissions.

FPEIR Level of Significance Before Mitigation

Not applicable.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Since the certification of the FPEIR in 2004, methods for analyzing greenhouse gas emissions have become available enabling an informed analysis of greenhouse gas emissions resulting from the proposed solar project. Therefore, this project-level analysis is considered new information pursuant to Public Resources Code section 21166(c) and State CEQA Guidelines Section 15162(a)(3)(A). This Initial Study evaluates this new information to determine if it results in new potentially significant impacts.

Giroux & Associates prepared an Air Quality Impact Analysis (AQIA) for the project in September 2014. The AQIA evaluates emissions from construction and operations, focusing on criteria air pollutants, hazardous emissions, and GHG. The full report, with baseline emissions data, analysis methodologies and emissions modeling output, is included as Appendix A.

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

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

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

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

Pursuant to Section 15064.4 of the State CEQA Guidelines, the treatment of GHG emissions follows a process of quantification of project-related GHG emissions, determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant.

Construction Activity GHG Emissions

During project construction, the CalEEMod computer model predicts that the indicated activities could generate 376 CO₂(e) in 2015. For screening purposes, the temporary construction activity GHG emissions were compared to the chronic operational emissions in the ARB's interim thresholds. The screening level operational threshold is 7,000 metric tons (MT) of CO₂-equivalent (CO₂(e)) per year. Worst year construction activities generating a total of 376 MT are well below this threshold. Impacts would be less than significant.

Operational Activity GHG Emissions

Operational travel for cleaning of the panels and security travel will create a very small amount of annual CO₂, shown to be approximately 8 metric tons of CO₂ per year. However, the project is GHG positive because it will provide 10.0 MW of energy generation. The development of renewable energy resources is an integral component of the California AB-32 implementation strategy. Project operational GHG impacts are therefore considered positive.

Net GHG Emissions Displacement (Off-set)

As designed, the Victorville Solar project, a 10.0 MW rated plant with a 20% solar capacity factor, would annually produce 17,520 megawatt-hour (MW-HR) of electrical energy. The generation of 1 MW-HR of electricity in California produces an average of 0.331 MT of CO₂(e). The off-set created by 17,520 MW-HR per year of solar generation would be 5,800 MT CO₂(e). The corresponding operational GHG emissions would be approximately 13 metric tons of CO₂(e). The net GHG benefit for this project would be more than 5,785 MT CO₂(e) per year.

The displacement/off-set effect of solar power is enhanced by the fact that the displaced generation reduction would likely occur at fossil-fueled power plants that have higher GHG emission rates than 0.331 MT per MW-HR. The most highly efficient combined cycle gas-fired plant in California generates 0.35 MT per MW-HR. Coal-fired plants in the western United States may produce almost 1.0 MT of CO₂(e) per MW-HR. Therefore gas turbine or coal-fired plants would produce from 6,000 to 18,000 MT without the proposed project. There would be no impact related to emissions of GHGs that may have a significant impact on the environment, and there would be no conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

Decommissioning Plan

Should operations at the site be terminated, the facility will be decommissioned. A Decommissioning Plan for the project would be prepared and submitted to the County for approval prior to the issuance of a grading permit in accordance with County Development Code Chapter 84.29 (Renewable Energy Generation). While the project may be decommissioned after the 20 year life of the power purchase agreement for the project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. It is assumed that decommissioning of the site would require the same construction scenario (activities, equipment, duration) as the initial development of the site. In connection with the decommissioning efforts, the applicant (conservatively) estimates that approximately 15 acre-feet of water will be required in connection with landscaping and other vegetative restoration. Most parts of the proposed system are recyclable. Panels typically consist of silicon, glass, and an aluminum frame. All of these materials can be recycled. Numerous recyclers for the various materials to be used on the project site operate in San Bernardino and Riverside Counties. Metal, scrap equipment, and parts that do not have free flowing oil may be sent for salvage. Equipment containing any free flowing oil will be managed as waste and will require evaluation. Oil and lubricants removed from equipment will be managed as used oil – a hazardous waste in California. Decommissioning will comply with federal, state, and local standards and regulations that exist at the time of project shutdown.

It is assumed that decommissioning of the site would require the same construction scenario (activities, equipment, duration) as the initial development of the site; however, future GHG impacts would be less than those currently projected due to anticipated advancements in technology and a cleaner-burning construction equipment fleet mix. Therefore, future air quality impacts related to decommissioning would also be less than significant.

Project Design Features (PDFs) and/or Policies, Plans or Procedures (PPPs)

No PDFs and PPPs are applicable to greenhouse gas emissions.

Mitigation Measures

No mitigation measures are required as there are no adverse impacts related to greenhouse gas emissions.

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

Explanation of Checklist Responses

Would 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR concluded that the VSL accepts only non-hazardous waste and the proposed expansion does not involve development of any facilities onsite to accept hazardous waste. Household hazardous products brought onsite in the waste stream are routinely removed during load checking, and stored onsite until a licensed contractor removes them for proper disposal. The landfill expansion will not create any risk involving hazardous wastes onsite. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed solar project is not expected to result in impacts from hazards and hazardous materials with respect to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Existing Conditions

A Phase I Environmental Site Assessment (ESA) for the project parcel was conducted in September 2014 by Hillmann Consulting (see Appendix F). The following is a summary of Phase I ESA findings.

The VSL, which is owned and managed by the County of San Bernardino-Solid Waste Management Division (SWMD), directly abuts the solar project site to the northeast. The landfill has been operational since 1965 and is a Class III solid waste landfill which only accepts non-hazardous solid wastes including municipal refuse and construction debris. The landfill conducts regular monitoring of groundwater and soil-pore gas in order to determine if the landfill has affected the subsurface. Numerous environmental regulatory databases listings were identified for the landfill including FINDS, LDS, WDS, US AIRS, RCRA-SQG, SWF/LF, NPDES, ENF, San Bern. Co. Permit, EMI, Financial Assurance, HAZNET and RGA LF.

Historic monitoring of the landfill conducted since the late 1980s has documented impacts to groundwater by inorganic and organic constituents, which is an on-going violation of the landfill's

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Victorville Sanitary Landfill Solar PV Project

NPDES permit. In response, an Evaluation Monitoring Program (EMP) was implemented by SWMD to assess site conditions and a landfill gas collection system was installed to reduce the migration of VOCs from the landfill. Hillmann reviewed the most recent groundwater monitoring report for the landfill. Monitoring well VSL-6 is at the southern border of the landfill and adjacent to the solar project site while well VSL-12 is at the southeastern portion of the solar project site. Laboratory results from groundwater sampling at VSL-6 indicated that tetrachloroethene (PCE), dichlorodifluoromethane (DCDFM), trichloroethene and trichlorofluoromethane were detected. The State and Federal maximum contaminant level (MCL) was exceeded for both PCE and nitrate in groundwater sampled from VSL-6. Trace amounts of PCE and DCDFM were also detected in VSL-12 though below the MCL which, according to the report, is a historic trend. The presence of the adjoining landfill and associated subsurface impacts are considered to be Recognized Environmental Conditions (REC) in connection with the solar project.

Hillmann reviewed regulatory files for the solar project site at the Regional Water Quality Control Board's Lahontan Regional Office in Victorville, California. One document was titled "Condensate Release at the Landfill Gas Flare Station at the Victorville Sanitary Landfill" and dated 12/23/2013. The document was prepared by the County of San Bernardino Department of Public Works Solid Waste Management Division; and addressed to the California Regional Water Quality Control Board. The letter report indicates that a crack formed in a condensate strainer, and between 50 and 150 gallons of condensate were estimated to have spilled. The condensate flowed over the concrete pad and onto the soil west of the pad (at or very near the Phase 3 boundary). The impacted soil was excavated, and the void was backfilled with clean fill soil. Two soil samples were taken, including one of the excavated impacted soil and a second from the bottom of the excavated pit, and analyzed under various Hazardous Materials Characterization tests. Results of the soil sampling, which were not discussed by the 12/23/14 letter, indicated elevated levels of acetone and 2-butanone (MEK) and the presence of tert-Butanol (TBA) in the sample collected from the bottom of the excavated soil. It was not clear from the existing documentation whether or not additional corrective actions would be required by the RWQCB. Given the unknown regulatory status regarding the condensate release, the incident is considered to be a REC in connection with the Phase 3 site.

Considering that the landfill is owned and managed by the County of San Bernardino; that the property consists of undeveloped land; that the County is the responsible party for the December 2013 condensate release incident and has conducted corrective actions; and that the environmental impacts of the VSL are being monitored under an approved Evaluation Monitoring Plan and landfill gas collection system, no additional investigation is recommended at this time with regard to the identified RECs.

No evidence of any Controlled Recognized Environmental Conditions (CRECs) in connection with the Phase 3 expansion area was identified.

No evidence of any Historical Recognized Environmental Conditions (HRECs) in connection with the Phase 3 expansion area was identified.

Project Construction & Operations

The proposed solar project would not involve the routine transport, use, or disposal of significant amounts of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. During construction, the proposed project would involve the transport of general construction materials (i.e., concrete, wood, metal, fuel, etc.) as well as the materials necessary to construct the proposed PV arrays. Construction activities would involve the use of hazardous materials such as fuels and greases for the fueling and servicing of construction equipment. Such substances may be stored in temporary storage tanks/sheds that would be located on the project site. Although these types of materials are not acutely hazardous, they are classified as hazardous materials and create the potential for accidental spillage, which could expose workers. The use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal,

state, and County regulations. No extremely hazardous substances (i.e., governed under Title 40, Part 335 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or disposed of as a result of project construction. As needed, Material Safety Data Sheets for all applicable materials present on-site would be made readily available to on-site personnel as required by the Fire Department. During construction of the facility, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

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

As with the FPEIR, because the project would comply with federal, state, and county laws, ordinances, and regulations related to management and transportation of hazardous materials; because the project would require limited quantities of hazardous materials, including no extremely hazardous substances; the project would result in less-than-significant impacts related to the creation of significant hazards through the routine transport, use, or disposal of hazardous materials, as well as from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the proposed solar project is consistent with the conclusions of FPEIR. Project implementation would not result in new significant impacts.

c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

There are no schools located one-quarter mile of the site.

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

There are no schools located one-quarter mile of the site. Therefore, the proposed solar project is consistent with the conclusions with the FPEIR and would result in no new impacts.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR concluded that the VSL accepts only non-hazardous waste and the proposed expansion does not involve development of any facilities onsite to accept hazardous waste. Household hazardous products brought onsite in the waste stream are routinely removed during load checking, and stored onsite until a licensed contractor removes them for proper disposal. The landfill expansion will not create any risk involving hazardous wastes onsite. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

See discussion in Section VIII a–b above. The Phase I ESA (Hillmann Consulting, 2014) for the project parcel reviewed the lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As discussed in Section VIII a –b above, the project site has a REC, however development of and operation of the solar project would not create a significant hazard to the public or the environment. The Phase I concluded that since that the landfill is owned and managed by the County of San Bernardino; that the Phase I property consists of undeveloped land; that the County is the responsible party for the December 2013 condensate release incident and has conducted corrective actions; and that the environmental impacts of the VSL are being monitored under an approved Evaluation Monitoring Plan and landfill gas collection system, no additional investigation is recommended at this time with regard to the identified RECs. Therefore there are no new impacts.

- e) For a project within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

PFEIR Impact HA-1 states that the proposed landfill expansion project may require additional compliance measures in accordance Federal Aviation Administration (FAA) with regards to the Southern California Logistical Airport or the Apple Valley Airport due to the potential of bird strikes to occur. This was considered a potentially significant impact.

The Victorville Landfill is located within five miles of the Southern California Logistical Airport (SCLA) and the Apple Valley Airport. The landfill is not located within an Airport Safety Overlay District, as indicated by the County of San Bernardino Hazard Overlay Maps. Foraging birds at a landfill pose a potential hazard to aircraft. Federal regulations require that the landfill operator demonstrate that a landfill operating within 10,000 feet of a jet airport would not cause a bird hazard to the airport. The site is located beyond the 10,000 foot threshold. The potential for landfilling activities to pose a significant threat to aircraft from birds which may forage the active landfill for food is low. There have been no reports of bird strikes attributed to the landfill.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

- HA-1 In accordance with 40 CFR Section 258.10(b), the owner/operator will notify the affected airports and the Federal Aviation Administration (FAA) of the proposed landfill expansion project prior to construction.

FPEIR Level of Significance After Mitigation

Notifying the airports and the FAA will help ensure that the landfill expansion project follows all the necessary guidelines as established by this agency, and minimizes the risk of any potential future impacts.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The site is not located within an airport land use plan, or within two miles of a public or private airport. The solar project would not invite foraging birds or increase the potential for airplane bird strikes. The solar project applicant would have to comply with mitigation measure HA-1 and notify the FAA prior to construction activities. Therefore, the proposed project is consistent with the conclusions of the FPEIR and would result in new impacts.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The Osborne airstrip, a private use airstrip running parallel to I-15, is located south of Stoddard Wells Road. The runway would be located 0.35 miles southeast of the proposed solar field. For the same reasons described above relative to the potential glare causing less than significant impacts to motorists, glare would also have limited impact on pilots. Further, glare impacts from the solar field would not affect aircraft pilots using the airstrip’s runways because the runway is oriented northeast to southwest which would not place the landing pattern directly facing the project site. Pilots landing in a southwesterly direction would also be screened from the project site by the existing landfill hill. Therefore, there would be no new impact related to a safety hazard caused by adjacency of a private airstrip.

g) Impair implementation of an adopted emergency response plan or emergency evacuation plan?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Because the project would not impede any existing emergency vehicle access or evacuation routes for the VSL, and would not otherwise conflict with the County's emergency response plans, there is no impact related to the project impairing the implementation of an adopted emergency response plan or emergency evacuation plan. Therefore, the proposed project is consistent with the conclusions of the FPEIR and there would be no new impacts.

h) Expose people or structures to a risk of loss, injury or death involving wildland fires?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill is not located in a wildland fire hazard area and does not create any impacts involving wildland fires onsite. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project area is not mapped as an area of high wildland fire hazard by the San Bernardino County Fire Department. Therefore, the proposed solar project is consistent with the conclusions of the FPEIR and there would be no new impacts.

Project Design Features (PDFs) and Policies, Plans and Procedures (PPPs)

No PDFs and PPPs are applicable to hazards.

Mitigation Measures

No mitigation measures are necessary because no new significant impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
IX. HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a deficit in aquifer volume or lowering of the local groundwater table?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures that could impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
i) Expose people or structures to loss, injury or death from flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

County of San Bernardino

Victorville Sanitary Landfill Solar PV Project

Would the project:

- a) *Violate any water quality standards or waste discharge requirements?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR Impact HW-4 states that leachate from the landfill could potentially migrate into the groundwater aquifer. The existing landfill is currently unlined, with the exception of the surface impoundment area (approximately six acres which has been clean-closed). Additional leachate from the proposed expansion could potentially contaminate the underlying groundwater aquifer creating a significant impact to water quality.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

HW -6 The proposed landfill liner system and drainage facilities shall be designed and constructed in conformance with the Regional Water Quality Control Board, Lahontan Region (RWQCB), California Integrated Waste Management Board (CIWMB), and County of San Bernardino, Department of Health Services, Local Enforcement Agency (LEA). These systems must be designed and constructed to ensure minimal risks to groundwater contamination would occur with expansion of the landfill.

FPEIR Level of Significance After Mitigation

After implementation of the above mitigation measure, potential landfill contamination to the areas groundwater would be reduced to less than significant impacts.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Operation of the solar project would not require the regular use of water or produce any form of wastewater. Waste Discharge Requirements (issued by the RWQCB) will be required to certify that any construction-period discharges to drainage crossings identified as under State jurisdiction do not result in significant impacts. As further explained below, the solar project would result in less-than-significant impacts related to the violation of any water quality standards.

Construction

Implementation of the project has the potential to generate stormwater pollutants during the construction phase. Stormwater runoff from the project site could contain pollutants such as soils and sediments that are released during grading and excavation activities, as well as chemical and petroleum-related pollutants due to spills or leaks from heavy equipment and machinery. Other common pollutants that may result from construction activities include solid or liquid chemical spills; concrete and related cutting or curing residues; wastes from paints, sealants, solvents, detergents, glues, acids, lime, plaster, and cleaning agents; and heavy metals from equipment.

Hazardous materials (such as fuels, solvents, and coatings, among others) associated with construction activities would be stored and used in accordance with manufacturer's specifications and applicable hazardous material regulations. However, soil disturbance (from construction activities associated with site grading, mounting of the solar panels, equipment installation, electrical conduit trenching, and scraping for the access roads) could cause soil erosion and the eventual release of sediment into stormwater runoff.

The NPDES permit program was established to control water pollution by regulating point sources that discharge pollutants into Waters of the U.S. Pursuant to Section 402(p) of the Clean Water Act (CWA), which requires regulations for permitting of certain stormwater discharges, the SWRCB issued the statewide NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No 2009-009-DWQ, as amended), which became effective on July 1, 2010.

Under this Construction General Permit, individual NPDES permits or Construction General Permit coverage must be obtained for discharges of stormwater from construction sites with a disturbed area of one or more acres and are required to either obtain individual NPDES permits for stormwater discharges or be covered by the Construction General Permit.

Coverage under the Construction General Permit is accomplished by completing and filing Permit Registration Documents (PRDs) with the SWRCB prior to commencement of construction activities. Among the PRDs are a Risk Assessment, a Site Map, and a SWPPP. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction. The Construction General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk, and each project would then be categorized into Risk Level 1, 2, or 3, with increased monitoring required for certain higher-risk sites.

Pursuant to permit requirements, the applicant will be required to implement the BMPs outlined in the project's SWPPP, thereby reducing or eliminating construction-related pollutants in site runoff. Compliance with this requirement would ensure that temporary water quality impacts associated with construction activities would be less than significant.

Operations

If it is determined by the County that the project is subject to the preparation of a WQMP, it would be subject to the requirements of SWRCB Water Quality Order No. 2003-0005-DWQ, with a WQMP prepared following the standards established by the Lahontan RWQCB. During operations, the project would not require the use of chemicals, hazardous materials, or other pollutants that could impact waters. Panels may be washed periodically (typically no more than twice per year). Such cleaning would occur by spraying demineralized water on the panels to remove dust and other material buildup. Cleaning water (approximately 0.5 to 1 gallon per module) would be allowed to infiltrate into the ground or evaporate as it drips off the PV modules. No cleaning agents would be used during this process.

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

Based on these factors, there is no reasonable expectation of solar project operations resulting in impacts to water quality, and impacts would remain less than significant. The proposed solar project would not discharge wastewater into the existing wastewater system. No industrial discharges are proposed. No mitigation measures are necessary and there would no new impacts compared to the landfill expansion approved by the FPEIR. Therefore, the proposed solar project is consistent with the conclusions of FPEIR.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a deficit in aquifer volume or lowering of the local groundwater table?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

FPEIR stated that water used for dust control at the existing landfill is currently supplied from an off-site source. The expansion of the landfill will increase onsite vehicle use which will result in increased dust

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generation. Additional water will be needed to mitigate any additional dust caused at the landfill. (FPEIR Section 2.72, Effects Found Not To Be Significant). This impact was addressed in the Chapter 4.9, *Utility Systems*, of the FPEIR. The landfill's impact on water supply is addressed in Section XVII.d of this Initial Study.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Operation of the solar project would require negligible amounts of water, limited to cleaning of solar panels up to two times per year, using a total of one acre-foot of water per year. Washing would require the use of water trucks. Trucks would obtain a supply of water from offsite sources. The project will not house permanent employees, nor include onsite restrooms. The solar project would also create a small amount of imperviousness—less than 15 percent of the site would be made impervious as a result of the project. Therefore, since the solar project would not use substantial amounts of groundwater or create large, impermeable surfaces, it would not cause depletion of groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Groundwater aquifer volume and recharge would not be significantly impacted by the implementation of the solar project. Therefore, the proposed solar project is consistent with the conclusions of FPEIR. There would be no new impacts.

- c) *Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site?***

- d) *Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

Impact HW-1: Construction of the Victorville Sanitary Landfill Expansion Project will alter the drainage pattern of the site, and concentrate flows on the site to minimize storm water drainage through the landfilling footprint area. The drainage system would concentrate flows toward the southeast portion to a proposed detention basin/de-siltation area, and then discharge into the areas natural drainage basin. These drainage facilities must be designed to adequately handle intense storm events and prevent flooding within the landfill footprint. This is a potentially significant impact.

Impact HW-2: Mass grading of Victorville Sanitary Landfill Expansion Project will change the topography of the site and alter the existing flow-paths and natural drainage basins in these areas. This is a potentially significant impact.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

HW -1 The County shall complete a final drainage plan based on the final site and engineering design plans completed for the Victorville Landfill Expansion Project. The plan will include design drawings of the proposed drainage facilities that would be used to convey storm water around and/or through the site. The plan shall be in conformance with and meet the minimum criteria established by the County of San Bernardino Department of Public Works and RWQCB Lahontan Region for discharge rates, quantities and locations of facilities.

HW-2 Before each rainy season, after each major storm, and on a monthly basis during the rainy season, all drainage facilities shall be inspected and any required maintenance performed to ensure that the drainage channels and de-silting basins function properly. Any silt collected within the basins would be used as daily cover material for the landfill. Any of the flows from adjacent properties would be contained in the perimeter drainage channel and diverted around the basin.

HW-3 Prior to disturbance of any blue-line stream, the County shall consult with CDFW per Section 1601 of the State Fish and Game Code. The project will require the implementation of a Streambed Alteration Agreement.

FPEIR Level of Significance After Mitigation

Impact HW-1: Implementing mitigation measures HW-1 and HW-2 will reduce impacts associated with alteration of existing drainage patterns to less than significant levels.

Impact HW-1: Implementing Mitigation Measure HW-3 will ensure impacts to the drainages will be less than significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

As discussed in more detail in Section IV.b, various drainages traverse the site and will be permanently impacted by development of VSL Phase 3 and the solar project. Phoenix Biological Consulting (Phoenix) prepared a new JD within the Phase 3 expansion area of the VSL. The JD is provided in Appendix D of this Initial Study. Based on the JD report, and as shown in Table 3 (JD Table 1, *Drainages Occurring Onsite*, the Phase 3 portion of the landfill has 7.64 acres of Department of Fish and Wildlife (CDFW), United States Army Corps of Engineers (ACOE) the RWQCB jurisdictional drainages of which 5.14 acres will be impacted by the solar project (See Figure 15).

A 404 permit was obtained for the Phase 1 portion of the landfill (ACOE Permit # SPL-2009-00910-GS; ACOE, 2011). The 404 permit covered approximately 2.41 acres of waters of the U.S. Additionally, a 1600 Streambed Alteration Agreement (SAA) and a 401 Regional Water Quality Control Board (RWQCB) permit were obtained. Both the 401 and 1600 permit included the entire landfill site. However, the permits did not cover the proposed solar use. Therefore, the solar project proponent will seek an amendment to both the 401 and 1600 permit to cover the proposed solar use in these existing permits. Additionally, the project proponent will seek a 404 permit to cover the proposed fill of waters of the U.S. within the solar project footprint.

Mitigation measure HW-3 to include more specific avoidance and minimization measures outlined in JD for the solar project (Phoenix 2014). Compliance with existing regulations and mitigation measure HW-3 would ensure that the solar project would not adversely affect drainages or drainage patterns, substantially increase the rate or amount of surface runoff, lead to flooding, or result in substantial erosion or siltation.

The hydrology study prepared for the solar project (Joseph E. Bonadiman & Associates, Inc., 2014) determined that the peak 100-year existing conditions discharge is 913 cubic—feet per second (CFS). After grading, the proposed 100-year basin peak discharge would be 952 CFS. The increase in flow rate

of 4.3 percent would add little impact to the Bell Mountain Wash, which as a Zone A flood zone prohibits construction in areas affected by the wash. The increase of 39 CFS would have a minor effect on the flood boundary or depth of flow in the wash. The solar project would not result in any substantial alteration to the drainage pattern of the site or area, nor would it result in any substantial increase in runoff that could cause flooding on- or off-site.

Therefore, no new impacts are anticipated as a result of project implementation. The solar project is consistent with the FPEIR and impacts remain less than significant. See also discussion in Section IX.a above.

Applicable FPEIR Mitigation Measures

The following mitigation measures are taken directly from the FPEIR and modified as necessary based on project-specific approvals. All of the mitigation measures listed apply to and will be implemented for the proposed solar project.

HW-3

- a.** Prior to disturbance of any blue-line stream, the County or Permittee shall consult with CDFW per Section 1601 of the State Fish and Game Code. The project will require the implementation of a Streambed Alteration Agreement.
- b.** Spoil sites shall not be located within a wash or locations that may be subjected to high storm flows, where spoil may be washed back into washes, or where it may impact streambed habitat, aquatic or riparian vegetation.
- c.** Permittee and all contractors, subcontractors, and employees shall not dump any litter or construction debris within the washes, or where it may pass into the washes.
- d.** Storm water pollution prevention program (SWPPP) and Best Management Practices (BMP) will be adhered to minimize silt-laden water and hazardous materials from entering any drainages. Specific BMP may include straw bales, gravel bags, straw fiber rolls, silt fencing along any drainages that will be disturbed. Additionally hazardous fuels will have secondary containment and no refueling of vehicles will occur within 100 feet from a drainage.
- e.** Permittee shall pick up all debris and waste daily and dispose of in a legal manner. In addition, the Permittee shall remove all Project generated debris, building materials and rubbish from the stream and from areas within one hundred and fifty (150) feet of the high water mark where such materials could be washed into the stream following completion of Project activities.
- f.** Water containing mud, silt, or other pollutants from equipment washing, panel washing or other activities, shall not be allowed to enter a wash or placed in locations that may be subjected to high storm flows.
- g.** No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from construction, or associated activity of whatever nature resulting from project-related activities which would be hazardous to aquatic life or waters of the state shall be allowed to enter into or placed where it may be washed by rainfall or runoff into a wash or any other jurisdictional feature. When construction is completed, excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of a wash or any stream.
- h.** No equipment maintenance or fueling shall be done within or near any wash where petroleum products or other pollutants from the equipment may enter these areas under flow.
- i.** Mitigation for the removal of vegetation associated with the drainage shall include re-vegetation of suitable areas with desirable vegetation native to the area wherever applicable. Hydro-seeding, jute netting and/or straw fiber rolls will be used to stabilize temporary impacts to any drainages after the project is complete.

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- j. Work areas within jurisdictional drainages shall be flagged as to assure work activities and impacts do not exceed those permitted.
- k. All areas of disturbed soils with slopes towards a wash shall be stabilized to reduce erosion potential. Where possible, stabilization shall include the re-vegetation of stripped or exposed areas with vegetation native to the area. Where suitable vegetation cannot reasonably be expected to become established, non-erodible materials may be used for such stabilization.
- l. Structures and associated materials, including debris, not designed to withstand high seasonal flows shall be relocated to areas above the high water mark before such flows occur.
- m. Any project-disturbed portions of drainages not permanently impacted by this project will be restored to as near pre-project conditions as possible.
- n. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This will include the work site to be isolated and/or the construction of silt catchment basins, so the silt or other deleterious materials are not allowed to pass to the downstream reaches. BMP and SWPPP measures will be installed along drainages where newly cut slopes and sediment/siltation may flow into drainages. These may include straw fiber rolls, straw bales, silt fencing, gravel bags, jute netting and catchment basins.
- o. Spoil sites shall not be located within a wash, where spoil can be washed back into a stream, or where it will cover aquatic or riparian vegetation. The applicant will remove all human-generated debris.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

f) *Otherwise substantially degrade water quality?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

See summary of FPEIR impacts in Section IX a-d above.

FPEIR Level of Significance Before Mitigation

See summary of FPEIR impacts in Section IX a-d above.

FPEIR Mitigation Measures

See summary of FPEIR impacts in Section IX a-d above.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The peak 100-year existing conditions discharge is 913 cubic—feet per second (CFS). The proposed 100-year basin peak discharge is 952 CFS. The increase in flow rate of 4.3 percent would add little impact to the Bell Mountain Wash, which as a Zone A flood zone prohibits construction in areas affected by the wash. The increase of 39 CFS would have a minor effect on the flood boundary or depth of flow in the wash.

The solar project would require earthworks of 188,346 cubic yards (cy) of cut and 172,863 cy of fill materials during grading of up to 57.6 acres. The remaining 15,483 cy of cut would be spread around the site. As required by regulation and discussed above, the project would comply with NPDES requirements for control of discharges of sediments and other pollutants during construction. This requires preparation of a SWPPP. Because the project would not significantly increase off-site runoff

quantities, and the quality of any runoff would be controlled through the required implementation of a SWPPP and a WQMP, impacts associated with quality or quantity of runoff would be less than significant. Therefore, the proposed solar project is consistent with the conclusions of the PFEIR and would not result in new significant impacts.

g) Place housing within a 100-year flood hazard area?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

No residential uses are proposed on the project site; thus, no homes would be located within a 100-year flood hazard area. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

No residential uses are proposed on the project site; thus, no homes would be located within a 100-year flood hazard area. Therefore, the solar project is consistent with the conclusions of the FPEIR.

- h) Place within a 100-year flood hazard area structures that could impede or redirect flood flows?***
- i) Expose people or structures to loss, injury or death from flooding, including flooding as a result of the failure of a levee or dam?***
- j) Expose people or structures to inundation by seiche, tsunami, or mudflow?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The PFEIR stated that floodplain information indicates that the area immediately southwest of the site is located within a special flood hazard zone that could be inundated by a 100-year flood. The area proposed for expansion is above the flood plain area and that portion of the site that includes Bell Mountain Wash is not proposed to be disturbed. It would remain as a buffer area. The FPEIR also concluded that the landfill expansion project will not create any risks associated with flooding, inundation by seiche, tsunami, or mudflow. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project area is above the flood plain area that could be inundated by a 100-year flood. Bell Mountain Wash is not proposed to be disturbed and would remain as a buffer area.

The solar project proposes to place mechanical equipment on the project site, with no permanent onsite employees and no residential development. The project would not expose people or structures to risk or injury as a result of the failure of a levee or dam. In the event that storm flows exceed the flood control channels, onsite drainage features built as part of the VSL would help control flood flows such that flood impacts would be less than significant. For this reason, the hazard posed by flooding, including flooding as a result of the failure of a levee or dam, are considered less than significant.

The proposed solar project would not expose people or structures to inundation by seiche, tsunami, or mudflow. The site is not near the coastline and would not be impacted by tsunami waves. There are no large standing bodies of water, either onsite or offsite, that could generate seiche waves. Seiches are standing waves in an enclosed or partially enclosed body of water, such as a lake, that can be caused by seismic activity.

Therefore, the proposed project is consistent with the conclusions of FPEIR. No new impacts are anticipated.

Project Design Features (PDFs) and Plans, Policies and Procedures (PPPs)

PDFs

No PDFs are applicable.

PPPs

No PPPs are applicable to hydrology and water quality.

Mitigation Measures

No mitigation measures are necessary because no new significant impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
X. LAND USE AND PLANNING				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

- 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 adopted for the purpose of avoiding or mitigating an environmental effect?*
- c) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The analysis for the VSL expansion concluded that no established community exists within the vicinity of the site and prescribed zoning in the area would not create any significant future impacts. Expansion of the landfill would not conflict with any applicable land use plan, policy, or regulation. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed solar project would not physically divide an established community. The nearest residential uses are over two miles away, east of I-15, behind the limestone quarry. Existing institutional uses in the project vicinity include the landfill, a limestone quarry, electricity transmission lines, and industrial uses. The project would not result in the closure of any public rights-of-way or otherwise impede movement in the area. Therefore, future development of the property would be compatible with the surrounding community and would not physically divide an established community.

The proposed solar project would not be in conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. The entire VSL is designated IN (Institutional). In the San Bernardino County Development Code Section 82.04.040, "electrical power generation" and "utility facilities" are conditionally permitted within the IN zone. Additionally, Section 84.29.020, part of the Renewable Energy Generation Facilities portion of the Code, specifies that solar power generation facilities are conditionally permitted within the IN zone.

The entire VSL boundary is within the City of Victorville's SOI, which includes the project site. The City adopted the Desert Gateway Specific Plan in 2009, which designated the VSL for single- and multi-family use as well as parks and open space by the Specific Plan. The City determined that the proposed solar project would not conflict with the Desert Gateway Specific Plan for the following reasons¹:

1. The Specific Plan assumed the VSL would close in a much shorter time frame than the VSL is permitted to operate; however, this will not occur;
2. The long term plan and size of the landfill was not known to City Development Department Planning Staff during the Specific Plan design and approval process;
3. The Specific Plan land use plan will require modification due to a changed development environment since the City's adoption of the Specific Plan;
4. The Specific Plan mentions the potential to use the landfill area for alternative energy uses; and,
5. Development of solar projects helps the City of Victorville to meet renewable energy goals/compliance.

As described in Item IV (Biological Resources), above, the proposed project is not within an HCP or a NCCP. Therefore, the proposed solar project is consistent with the conclusions of the FPEIR. There would be no new impacts.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to land use and planning.

Mitigation Measures

No mitigation measures are necessary because no new significant land use impacts have been identified.

¹ Paraphrased from email from Mr. Chris Borchert, City Development Department Director dated January 23, 2014.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XI. MINERAL RESOURCES				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The project site is not in a mineral resource area designated by the Division of Mines and Geology.

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project site is not utilized for mineral extraction, nor has it been identified as having important resources. There is no impact resulting from the loss of availability of a known, valuable mineral resource identified by the State or local government. The proposed solar project is consistent with the conclusions of the FPEIR and would not result in new impacts to mineral resources.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to mineral resources.

Mitigation Measures

No mitigation measures are necessary because no new significant mineral resource impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XII. NOISE				
Would the project:				
a) Expose persons to, or generate, noise levels in excess of standards established in the general plan or noise ordinance, or other applicable standards?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Expose persons to, or generate, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Expose people residing or working in the project area, where the project is located within an airport land use plan, to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Expose people residing or working in the project area, where the project is located within the vicinity of a private airstrip, to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation of Checklist Responses

Would the project:

- a) *Expose persons to, or generate, noise levels in excess of standards established in the general plan or noise ordinance, or other applicable standards?*
- b) *Expose persons to, or generate, excessive groundborne vibration or groundborne noise levels?*
- c) *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR analysis concluded that the landfill expansion project will not result in additional noise onsite, beyond the current landfill operations. The expansion of the landfill will increase the total waste disposal capacity and operational life, but it should not increase the daily activity onsite. Although the project will not increase noise levels, future urban growth and waste generation in the landfill service area creates a potential for increased daily activity on the site, which consequently would result in higher noise levels onsite. This impact would be less than significant as the existing noise levels onsite are minimal. The landfill site and surrounding area are close to the I-15, a high volume car and truck corridor. No sensitive receptors exist within the vicinity of the project site. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

Less than significant impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Construction and Operation Noise

Existing noise sources at the solar project site are primarily from traffic on I-15 and from adjacent landfill operations. There are no sensitive noise receptors in the vicinity of the solar project site.

Construction of the proposed solar project may potentially create some elevated short-term construction noise impacts from construction equipment between the hours of 7 a.m. and 7 p.m. Monday through Saturday. Construction of the proposed project would create elevated short-term construction noise from construction equipment during daytime hours. Construction noise is related primarily to the use of heavy equipment and would be intermittent and sporadic. Noise levels generated by heavy equipment can range from approximately 68 A-weighted decibels (dBA) to an excess of 100 dBA when measured at 50 feet. The distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. Construction equipment noise is analyzed as a point source. Noise from a point source is attenuated at a rate of 6 dBA per doubling of distance. For example, a noise level of 85 dBA measured at 50 feet from the source to the receptor would be reduced to 79 dBA at 100 feet, and 73 dBA at 200 feet. The highest anticipated noise levels from mobile equipment during construction would occur during pile driving for the solar structure posts, which has a maximum noise levels (Lmax) at a distance of 50 feet of 95 dBA. The solar arrays would be installed using pile-driving techniques, rather than grading, to minimize dust and soil disturbance. Actual pile driving averages 30-45 seconds per pile at a 6-foot embedment depth. At 250 feet, the noise from the pile driver should attenuate to 82 dBA, 75 dBA at 600 feet, and 55 dBA at 1,200 feet.

Both construction and operation of the proposed project would be conducted in compliance with the County's Development Code. Section 83.01.080(g)(3) of the Development Code specifically exempts "temporary construction, maintenance, repair, or demolition activities" from County noise standards, when such activities occur between 7 a.m. and 7 p.m., excluding Sundays and federal holidays." Operation of the proposed project would not generate audible levels of noise or perceptible levels of

vibration in the surrounding community. Onsite noises would be limited to small motors that rotate the photovoltaic panels on the single-axis tracking system, noise from inverters and pad-mounted transformers, and maintenance activities (including occasional cleaning, drive motor repair, tracker repair, electrical connection repair, and panel replacement). The small motors used to rotate the panels would produce very low levels of noise and operate only during daylight hours. Maintenance activities would be infrequent and only during daylight hours. The solar project would not include dwellings or other development, nor would it have the potential to generate any significant number of additional vehicle trips after construction is completed. Other noise from the facility would occur periodically due to occasional maintenance activities, twice-annual washings, and periodic visits by security staff. These activities would produce limited amounts of noise from pickup trucks and other light vehicles; such impacts would be temporary. Additionally, operating vehicles would only be located at any single point on the site for a very limited duration. Maintenance, repair, and washing activities would occur exclusively during daylight hours.

Permanent Increase in Ambient Noise

The proposed project would not create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The project would result in temporary noise increases during construction but would not create any substantial permanent increase in the ambient noise levels. Operational-period activities would include the occasional use of vehicles and the use of equipment that produce minimal noise levels at site boundaries.

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

Groundborne Vibration

Groundborne vibration and groundborne noise could originate from earth movement during the construction phase of the proposed solar project as well as from the operation and maintenance of the facilities. Operation of the proposed solar project would introduce noise that would be associated with the moving parts of the tracker panels as well as general maintenance activities associated with the facility. Noise from these operational generators would be minimal in nature and would not create a significant noise impact within the surrounding area. The project would not expose persons or structures to excessive groundborne vibration, as there are none in the solar project vicinity. Operation and maintenance of the facilities would not include activities that would be expected to generate groundborne vibration or groundborne noise, and the operational-period impact is less than significant. Impacts would be less than significant.

- e) ***Expose people residing or working in the project area, where the project is located within an airport land use plan, to excessive noise levels?***
- f) ***Expose people residing or working in the project area, where the project is located within the vicinity of a private airstrip, to excessive noise levels?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the proposed landfill expansion project does not include residential or commercial development; that the project is not located within an airport land use plan, or within two miles of a public airport; and that no impacts to airports will occur.

A private landing strip is located just to the southeast of the landfill expansion area. The landing strip is positioned in a north-south direction with the flight path east of the landfill. The FPEIR concluded that the landfill expansion includes a 150-acre unused/buffer area between the landfill and the southeast property line to minimize impacts to the existing airstrip and existing industrial uses. This buffer area will minimize any potential noise impacts to less than significant levels.

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed project does not include residential or commercial development. The project is not located within an airport land use plan, or within two miles of a public airport or public use airport. No impacts to airports or the private airstrip would occur.

Project Design Features (PDFs) and/or Plans, Policies, and Procedures (PPPs)

No PDFs or PPPs are applicable to noise.

Mitigation Measures

No mitigation measures are required because no noise impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XIII. POPULATION AND HOUSING				
Would the project:				
a) Induce substantial population growth in an area, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

- a) *Induce substantial population growth in an area, either directly or indirectly?*
- 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?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR analysis concluded that the landfill expansion project would have no impact on the general population growth in the area. The landfill project does not involve developing any housing and would not indirectly enhance the potential for population growth in the immediate vicinity. No housing exists on or near the site and there would be no impact associated with the displacement of substantial numbers of substantial numbers of people. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Implementation of the proposed solar project would not induce population growth. There would be no increase of development intensity beyond that which was anticipated and planned for in the General Plan. The project would not result in substantial, permanent onsite employment that could induce

substantial population growth in the area. There would be no impact associated with the displacement of substantial numbers of people or housing. The proposed solar project is consistent with the conclusions of the FPEIR and would not result in new impacts to population and housing.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to population and housing.

Mitigation Measures

No mitigation measures are necessary because no new significant impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of 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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Other public services/facilities?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

a) *Result in substantial adverse physical impacts associated with the provision of 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:*

Fire protection?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The landfill expansion project would not generate additional employees that would require public services such as police and fire. The FPEIR determined that the landfill project will result in minimal impacts to the public services in the area. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed solar project area is serviced by the San Bernardino County Fire Department. The nearest fire facility is Fire Station #311, located 6.5 miles southwest of the project site. The proposed project would not substantially impact service ratios, response times, or other performance objectives related to fire protection. However, during construction, some public services including fire protection may be required; these would be short-term requirements and would not require increases in the level of public service offered or affect the agency's response time. The project would incorporate perimeter and internal access driveway systems that are accessible to emergency equipment. Entry gates would incorporate Knox® locks or similar devices to allow 24-hour access for emergency responders.

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

Police protection?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill expansion project would not generate additional employees that would require public services such as schools or parks. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project site is served by the San Bernardino County Sheriff's Department, located 5.5 miles southwest of the site. The proposed project would not impact service ratios, response times, or other performance objectives related to police protection. However, during construction, some public services including police protection may be required. These would be short-term requirements and would not require increases in the level of public service offered or affect the agency's response times. In order to protect against theft and vandalism, the proposed project would employ its own security patrol crews to survey the project site during construction and operation of the project. Additionally, the solar project would incorporate security fencing and security cameras, and would be remotely monitored.

Schools?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill expansion project would not generate additional employees that would require public services such as schools or parks. The VSL expansion project will result in minimal impacts to the public services in the area. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Long-term operation of the proposed solar facilities would place no demand on school services because it would not introduce any significant temporary or permanent human population into the area. There would be no impact on schools.

Parks?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill expansion project would not generate additional employees that would require public services such as schools or parks. The proposed project will result in minimal impacts to the public services in the area. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

Long-term operation of the proposed solar facilities would place no demand on parks because it would not involve the construction of housing and would not involve the introduction of a temporary or permanent human population into this area. There would be no new impact on parks.

Other public services/facilities?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill expansion would not generate additional employees that would require public services such as libraries. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

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

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to public services.

Mitigation Measures

No mitigation measures are necessary because no significant impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XV. RECREATION				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

- a) *Increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would be accelerated?*
- b) *Require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR determined that the landfill expansion project will have no impact on the general population growth in the area. The project does not involve developing any housing and will not indirectly enhance the potential for population growth in the immediate vicinity. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

No Impact.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The solar project consists of a power generation facility, and would not result in increases in local population that would cause increased use of parkland or recreational facilities. There would be no new impact to such facilities from project implementation.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to recreation.

Mitigation Measures

No mitigation measures are necessary because no significant impacts have been identified.

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XVI. TRANSPORTATION/TRAFFIC				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Explanation of Checklist Responses

Would the project:

- a) ***Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant***

components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

- 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

Impact TC-1 Development of the proposed landfill expansion would contribute to cumulative traffic impacts at intersections used by vehicles traveling to/from the landfill. Vehicles entering the landfill would use Stoddard Wells Road as the primary route to access the landfill. This was considered to be a potentially significant impact.

FPEIR Level of Significance Before Mitigation

Potentially significant. Traffic conditions at all intersections would operate at acceptable levels with the exception of Stoddard Wells Road/1-15 Northbound during the peak PM hour in 2025. This intersection does not meet the required LOS criteria in 2025 without the proposed landfill project with the expected increase in growth to the surrounding area. Modifications would be required at this intersection to ensure level of service does not exceed the established acceptable Caltrans level (LOS D).

FPEIR Mitigation Measures

TC-1 All intersections used by vehicles traveling to/from the landfill would meet the Acceptable LOS criteria for the year 2025 with the exception of the Stoddard Wells Road/1-15 northbound intersection. This intersection will be mitigated by adding one through lane to the east and west approaches and a left-turn pocket for the northbound exit ramp. These improvements would be placed for operation in the year 2025. The County must pay the fair share contribution (\$6,657) of the total cost of these improvements (\$62,800) as calculated in the Traffic Impact Study.

FPEIR Level of Significance After Implementation of Mitigation Measures

Less than significant. The addition of a through lane to the east and westbound approaches and a left-turn pocket for the northbound exit ramp at the Stoddard Wells Road/1-15 Northbound intersection would mitigate traffic conditions to acceptable levels. This mitigation is recommended for the year 2025. All additional intersections would continue to operate at acceptable LOS levels according to the County of San Bernardino and Caltrans standards.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed solar project would generate trips during project construction and negligible trips during project operation. Trip generation for employees and delivery trucks would vary depending on the phase of construction for each phase of the project.

A 6-month construction period is planned. Construction would include two phases: Phase 1, Site Preparation (2 months) and Phase 2, PV System Installation (4 months). Phase 1 includes grubbing, grading, and placement of fencing and onsite access roads (aggregate base). Phase 2 includes placement and assembly of solar panels, installation of other electrical components (e.g., conduits and inverters) and the storage building, and the erection of distribution lines.

EPD Solutions, Inc. has prepared a construction management plan and trip generation analysis for the proposed solar project, included as Appendix H herein. As shown, all project construction vehicles would access the site from I-15 via Stoddard Wells Road. Construction would occur during daylight hours. Peak travel times for worker vehicles accessing the site will likely coincide with peak morning and evening commute periods (7:00 am to 9:00 am and 4:00 pm to 6:00 pm, respectively), while truck trips would be more distributed during the day.

Large trucks use more roadway capacity than passenger vehicles due to their larger size and reduced maneuverability. To account for their increased demands on roadways, passenger car equivalent (PCE) factors are used. It is estimated that a maximum of 50 PCE trips would occur during each of the AM and PM peak hours during Phase 1, and 81 PCE trips would occur during each of the peak hours during Phase 2. This conservatively assumes that all truck trips occur during peak hours, rather than being more evenly distributed throughout the day.

The only County-maintained road that would be affected by the project is Stoddard Wells Road, a two-lane undivided roadway. Stoddard Wells Road west of I-15 is identified in the San Bernardino County General Plan Land Use Plan Circulation and Transportation Map for the Victor Valley Region as a Secondary Highway. Based on a capacity of 1,600 vehicles per hour per lane (vphpl), the addition of peak-hour construction traffic of 81 PCE vehicles would represent less than 3 percent of the 3,200 vphpl capacity of Stoddard Wells Road. Traffic counts conducted by the County of San Bernardino Transportation Department show Stoddard Wells Road serving 593 average daily trips (ADTs), equivalent to a volume/capacity ratio of 0.185, at the nearest count location (the intersection of Johnson Road). Volume/capacity ratios below 0.34 equate to Level of Service "A." The addition of 81 PCE vehicles during a single hour would increase the volume/capacity ratio to 0.211, meaning the roadway will continue to operate with free-flowing traffic and a Level of Service "A" during the 4-month Phase 2 construction period. Traffic levels would be lower during the initial (Phase 1) construction period. Therefore, construction activities are not expected to cause congestion on area roadways and intersections which operate at LOS A. There is capacity on local intersections and streets near the site to handle traffic volume increases due to construction traffic. This impact would also be temporary and is less than significant.

During operations, the project would be unmanned and would generate less than one roundtrip per day for security and maintenance purposes. Operational period traffic would have no potential of conflicting with any applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. Operational-period traffic would also have no impact on traffic levels on Stoddard Wells Road or I-15. Due to the short period of impact of construction-period traffic, the impact during construction is also considered less than significant. Therefore, the proposed solar project is consistent with FPEIR and there would be no new impacts.

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?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The proposed landfill expansion project would not affect any air traffic patterns because the proposed landfill height, an additional 50 feet above what is currently permitted is well below nearby mountaintops.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The site is not located within an airport land use plan. The proposed project would not generate or require air transportation. Also, the proposed project would not change air traffic levels or change the location of air traffic to cause substantial safety risks or impact air travel in any way. The PV panels and associated equipment would not exceed single-story height. Therefore, no new impacts would occur.

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

d) Substantially increase hazards due to a design feature or incompatible uses?

e) Result in inadequate emergency access?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The landfill access road will not change as a result of the proposed project and emergency access will remain unchanged as well. (FPEIR Section 2.72, Effects Found Not To Be Significant). Emergency access to different portions of the landfill would be provided along the perimeter road traversing around the landfill footprint and expansion site. The location of this access road would be modified with expansion of the refuse footprint, but would continue to traverse around the outside of the footprint and the general outer perimeter of the site.

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project provides 25,500 square feet of new roads. The project's primary access would occur at the southeast corner of the site on a new approximately 900-foot-long, 26-foot-wide paved road ("paved offsite access road") that follows an existing 20-foot dirt road that connects to VSL's main access road. VSL's main access road connects to Stoddard Wells Road 1,000 feet to the south. The paved offsite access road will connect the project's internal roads to VSL's main access road. No new pavement is proposed within the fence line of the 57.6-acre project site.

There would be two types of internal access roads within the fenced 57.6-acre site; a 26-foot wide road along the perimeter of the solar field and two interior access roads 20 feet in width. Aggregate base or similar materials will be used for all internal access roads. These materials are pervious, and site imperviousness will be less than one percent following project construction. An all-weather dirt emergency access road will be provided at the northwest corner of the site that connects to Quarry Road.

The solar project would not introduce design features or uses on the site that are hazardous to or incompatible with offsite uses. The project does not include any significant construction or the realignment of any existing road facilities. Construction staging and lay-down areas would be located within the site boundaries and would not create a potential traffic hazard on public right-of-ways. As discussed above, the limited amount of construction activity for the grading and vehicle trips by the construction crew for delivery of building materials is not expected to cause traffic congestion or insufficient capacity on area roadways and intersections.

All entries are designed to San Bernardino County Fire Department (SBCFD) standards and gated entries include Knox® boxes or similar devices to permit emergency responders to enter in case of an emergency. Onsite access roads are also designed to SBCFD standards for widths, turning radii, and roadway base strength. The project would not modify existing access routes or otherwise impede emergency access to adjacent parcels. Based on these factors, there would be no new significant impact related to 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?***

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR concluded that no alternative transportation is proposed because the landfill employs so few workers. (FPEIR Section 2.72, Effects Found Not To Be Significant).

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The project design would not impact local public transportation, bicycle, or pedestrian facilities or public transportation services. Therefore, the proposed solar project is consistent with the FPEIR and no new impacts would result.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to transportation/traffic.

Mitigation Measures

No mitigation measures are necessary because no significant impacts have been identified.

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

Explanation of Checklist Responses

Would the project:

- a) *Exceed the wastewater treatment requirements of the 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 adverse environmental effects?**
- 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?**

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The landfill expansion project does not include any discharges to waste water treatment facilities. The FPEIR concluded that the project will result in the additional use of water onsite for fugitive dust control. The landfill expansion project will not generate additional wastewater because the operator will continue to use portable chemical toilets onsite. (FPEIR Section 2.72, Effects Found Not To Be Significant)

FPEIR Level of Significance Before Mitigation

Less than significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed project would not exceed wastewater treatment requirements of the Lahontan RWQCB. During construction, wastewater would be contained within portable toilet facilities and disposed of at an approved site. No employees would be permanently stationed at the site, and no permanent restrooms are planned. The project would discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. The County General Plan defers to applicable RWQCB water control requirements, and the proposed project's water discharge does not require treatment or permitting according to the regulations of the Lahontan RWQCB.

The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. The project will not require connection to water or sewer lines as the site will be unmanned. Water used during construction will be delivered to the site via trucks from existing, available offsite sources. Construction-period water use for typical solar PV projects of this size is about 15 acre-feet or approximately 4,888,500 gallons. PV power plants require little to no water in operation—only that used in periodic panel washings. This water must be specially purified and would be sourced from a private supplier, not from a municipal water source. Water use during operations will be negligible (less than one acre-foot per year or about the same usage as two single-family homes) for washing panels, if needed. Operational water needs will also be met with water trucks.

Because the site would not contain a permanent workforce, no toilet facilities would be required and there would be no demand for wastewater service. No water or wastewater connection is proposed for the project, and there would be no impact related to the demand for construction of new or expanded water or wastewater treatment facilities. Therefore, the proposed solar project is consistent with the FPEIR and no new impacts are anticipated.

- 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?**

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR concluded that the landfill expansion project will result in the construction of a new storm water drainage system onsite. Stormwater is currently diverted around the landfill and any precipitation onsite is diverted away from the landfill area. Total runoff for the landfill expansion area for the 100-year, 24-hour storm event equals 623.64 cubic feet per second. The landfill drainage system would be designed to handle storm water flows resulting from a storm of this intensity. The additional stormwater drainage system impacts were considered less than significant impacts.

FPEIR Level of Significance Before Mitigation

Less than Significant.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

The proposed solar project would not require the construction or expansion of stormwater drainage facilities. The proposed project would discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. The insubstantial quantity of discharged water generated by cleaning (less than one acre-foot) would evaporate or be absorbed into the soils onsite. Impervious surfaces created by the project would amount to less than 1 percent of the on the project site.

See also Section IX, Hydrology and Water Quality, in this Initial Study.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

No New Impact –

SUMMARY OF FPEIR ANALYSIS

PFEIR Impact US-1 stated that the additional demand for water supplies beginning in Phase 2 may have a potentially significant impact on the local sources of water supply and ability of the Victor Valley Water District (VVWD) to serve the landfill's needs.

FPEIR Level of Significance Before Mitigation

Potentially significant.

FPEIR Mitigation Measures

US-1 As part of the five-year SWFP review process undertaken jointly by SWMD and the Local Enforcement Agency (LEA), SWMD shall evaluate the feasibility of extending reclaimed water pipelines to the Victorville Landfill site for use in dust control efforts. Additionally, SWMD shall request a revision to its Waste Discharge Requirements (WDR) to allow the use of reclaimed water for dust control purposes during the next WDR revision cycle. SWMD shall also work with WWRA in amending its agreement with [California Department of Fish and Game (CDFG)] ~~DCFG~~ to allow reclaimed water to be utilized for dust control purposes.

FPEIR Level of Significance After Implementation of Mitigation Measures

The VVWD's Urban Water Management Plan (UWMP) includes projections for future water demands and supplies through the year 2020. According to VVWD, additional water conservation efforts and the potential for using State Water Project water (direct deliveries) would allow the District to meet projected demands until 2020, including dust control practices at the landfill. This time period would be within the early stages of Phase 2 of the landfill expansion and therefore, no impact to water supply or the District's water system would occur during the first 20 years of the landfill expansion project. After this point, alternative water supplies may be required. By using recycled water from the VVWRA at the earliest opportunity, SWMD may ensure a water supply for dust control beyond the horizon year identified by VVWD in its UWMP. Therefore, impacts to the regional water supply would be less than significant.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

During construction, water would be used to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. Construction-period water use for typical solar PV projects of this size will be 8,000 gallons per day during the grading period, and 2,500 gallons per day during other activities. Overall water use during construction would therefore be about 15 acre-feet or approximately 4,888,500 gallons. Water for construction activities can be of non-potable quality. All construction water would be trucked to the site from available commercial water sources acceptable to the County, including obtaining water deliveries from VVWD. Construction water would be sourced from a VVWD hydrant located at Dante St. and Stoddard Wells Rd., unless otherwise directed by the Water District.

It is expected one acre-foot of water would be required to wash the panels each year. Water would be delivered by truck for this purpose. The project would not be served by a direct connection to any water system or by an onsite well. Because of the negligible water supply requirements for the project (equivalent to about one single-family home), there are no significant impacts associated with the need for new or expanded water supply entitlements. Therefore, the proposed solar project is consistent with the FPEIR and no new impacts related to water supply would occur.

f) Be served by a landfill 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?

No New Impact –

SUMMARY OF FPEIR ANALYSIS

The FPEIR concluded that since the proposed project is the expansion of the existing VSL, it will increase the capacity for additional solid waste disposal in the service area. The project will abide by all federal, state, and local statutes related to solid waste. (FPEIR Section 2.72, Effects Found Not To Be Significant)

FPEIR Level of Significance Before Mitigation

No impacts.

FPEIR Mitigation Measures

None.

SOLAR PROJECT CHANGES AND RESULTING IMPACTS

No significant impacts related to landfill capacity are anticipated from the proposed solar project. The proposed project largely consists of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and would not result in long-term solid waste generation. Any waste would be disposed of at VSL. Therefore, there would be no new impacts.

During construction, the project would comply with AB 939 requirements to divert at least 50 percent of construction waste from landfills. The panels and tracking system would eventually need to be disposed of (decommissioned). Most parts of the proposed PV system are recyclable. Panels typically consist of silicon, glass, and a metal frame. Tracking systems (not counting the motors and control systems) typically consist of aluminum and concrete. All of these materials can be recycled. Concrete from deconstruction would be recycled through local recyclers. Metal and scrap equipment and parts that do not have free flowing oil would be sent for salvage. Equipment containing any free flowing oil would be managed as hazardous waste and be evaluated before disposal at a properly-permitted disposal facility. Oil and lubricants removed from equipment would be managed as used oil and disposed in accordance with applicable state hazardous waste disposal requirements.

Because project waste would be disposed of at the VSL, which has adequate capacity to accommodate the project's disposal needs, and the project would comply with State regulations related to waste diversion from landfills, the project would have a less-than-significant impact related to solid waste. Therefore, the proposed solar project is consistent with the FPEIR and there would be no new impacts.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable to utilities.

Mitigation Measures

No mitigation measures are necessary because no significant impacts related to utilities have been identified.

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

Explanation of Checklist Responses

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?

No New Impact - This Initial Study demonstrates that the solar project does not degrade the quality of the environment, reduce habitat for wildlife species, or endanger threatened plant and animal species, eliminate important examples of the major periods of California history or prehistory as compared to VSL FPEIR. With implementation of existing regulations, PDF's and FPEIR mitigation measures, impacts remain less than significant. There are no new impacts.

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)?

No New Impact – Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

- (a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.
- (b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

There are currently no significant projects in the entitlement process or under development within the vicinity of the project site. There are no new cumulative impacts.

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

No New Impact – As described in Sections I through XVIII, above, with implementation of the identified mitigation measures and PDFs the solar project will not result in significant impacts in any environmental impacts area, including the areas of aesthetics, air quality, biological resources, cultural resources, and noise compared to the VSL FPEIR and would ensure that there would be no substantial adverse effects on human beings, either directly or indirectly. There are no new solar project impacts which remain significant and unavoidable following implementation of FPEIR mitigation measures.

Project Design Features (PDF) and/or Policies, Plans and Procedures (PPPs)

No PDFs or PPPs are applicable.

Mitigation Measures

No mitigation measures are necessary because no significant impacts have been identified.

GENERAL REFERENCES

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- County of San Bernardino. (2007, March 13). *County of San Bernardino 2007 Development Code*. Amended July 25, 2013. Available at <http://cms.sbcounty.gov/lus/Planning/DevelopmentCode.aspx>
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- County of San Bernardino Geologic Hazards Overlays Map EHFH C (Victorville/San Bernardino).

PROJECT-SPECIFIC REFERENCES

- BCR Consulting. (2014, August 18). Cultural Resources Records Search for a Proposed Solar Photovoltaic Facility in the City of Victorville, San Bernardino County, California.
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- Giroux & Associates. (2014, September 4). Air Quality and Greenhouse Gas Impact Analyses. Victorville Landfill Solar Project San Bernardino County, California.
- Hillmann Consulting. (2014, September 5). Phase I Environmental Site Assessment. Southwest 95 Acres of Victorville Sanitary Landfill 18600 Stoddard Wells Road Victorville, California 92307.
- Phoenix Biological Consulting. (2014, August 13). Focused Desert Tortoise & Burrowing Owl Presence/Absence Surveys for Proposed 10 MW AC Photovoltaic Solar Array "Victorville Solar."
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- Phoenix Biological Consulting. (2014, July 14). Mohave ground squirrel (*Xerospermophilus mohavensis*) Trapping Results Proposed 10 MW AC Photovoltaic Solar Array "Victorville Solar."

LIST OF APPENDICES

- Appendix A. Air Quality and Greenhouse Gas Impact Analysis
- Appendix B. Biological Resources Assessment – includes Focused Desert Tortoise & Burrowing Owl Presence/Absence Surveys
- Appendix C. Mohave Ground Squirrel Trapping Results
- Appendix D. Jurisdictional Delineation
- Appendix E. Cultural Resources Records Search and Paleontology Literature and Records Review
- Appendix F. Phase I Environmental Site Assessment
- Appendix H. Construction Management Plan and Trip Generation Analysis