EXHIBIT B

STAFF USE ONLY

PROJECT NUMBER: *R2009-02089*
CASES: *RCUPT200900158*
RENVT200900128

*** * * * INITIAL STUDY * * * ***

COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING

GENERAL INFORMATION

I.A. Map Date: *July 30, 2010* Staff Member: *Anthony Curzi*

Thomas Guide: *Pg. H (LA County 62nd Ed.)* USGS Quad: *Neenach School Quadrangle*

Location:

Between Avenue B and C and 210th and 220th Street West, northwest of Lancaster

Description of Project:

The Alpine Solar Project includes the construction of a 92-megawatt (MW) solar photovoltaic (PV) energy facility on approximately 580 acres of the 800-acre site. The Project is described in more detail below.

Gross Acres: *800*

Environmental Setting:

The Alpine Solar Project site is located in a rural area of the Antelope Valley in the northern portion of Los Angeles County. The nearest rural residential communities are Neenach, located approximately 3 miles from the western boundary of the Project site, and Antelope Acres, located approximately 10 miles from the eastern boundary of the Project site. The closest residence is approximately 4,000 feet from the western boundary. The largest communities in the vicinity of the Project site include Rosamond, approximately 18 miles to the northeast, and Lancaster, approximately 20 miles to the southeast. Recreational opportunities in the area include the Los Angeles County Desert Pines Wildlife Sanctuary approximately 4 miles to the south, the Arthur B. Ripley Desert Woodland State Park approximately 3 miles to the south, and the Antelope Valley Poppy Preserve State Park approximately 7 miles to the southeast. Major transportation facilities include State Route (SR) 14 (north-south); SR 138/Avenue D (east-west); and several public, private, and military airports.

The Project site is generally bounded by West Avenue B to the north, West Avenue C to the south, 220th Street West to the west, and 200th Street West to the east. The Western and Eastern Parcels are approximately 0.5 mile apart. The Project location is depicted in the Site Plan.

Zoning: *A-2, Heavy Agriculture*

General Plan: *N-1, Non-Urban*

Community/
Areawide Plan: *Antelope Valley Areawide Plan*

Major Projects in Area: California Environmental Quality Act (CEQA) Guidelines (§15130[b][1]) recommend two methodologies for establishing the cumulative impact scenario. This document relies on the approach described in §15130[b][1][A], which uses "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency" (§15130[b][1][A]). Figure CUMULATIVE-1 shows the cumulative projects in relationship to the Alpine Solar Project. Appendix A provides a table of the cumulative projects.

REVIEWING AGENCIES

Responsible Agencies	Special Reviewing Agencies	Regional Significance
☐ None	☐ None	☐ None
☒ Regional Water Quality Control Board	☐ Santa Monica Mountains Conservancy	☐ SCAG Criteria
☐ Los Angeles Region	☐ National Parks	☒ Air Quality
☒ Lahontan Region	☐ National Forest	☐ Water Resources
☐ Coastal Commission	☐ Edwards Air Force Base	☐ Santa Monica Mtns. Area
☐ Army Corps of Engineers	☐ Resource Conservation District of Santa Monica Mtns. Area	☐
☐	☒ State Parks Department	☐
☐	☐	☐
☐	☐	☐

Trustee Agencies		County Reviewing Agencies
☐ None	☐	☐ Subdivision Committee
☒ State Fish and Game	☐	☒ DPW:
☐	☐	☒ County Fire
☐	☐	☐
☐	☐	☐
☐	☐	☐

IMPACT ANALYSIS MATRIX		ANALYSIS SUMMARY (See individual pages for details)				
			Less than Significant Impact/No Impact			
				Less than Significant Impact with Project Mitigation		
					Potentially Significant Impact	
CATEGORY	**FACTOR**	**Pg**				Potential Concern
HAZARDS	1. Geotechnical	43	☐	☒	☐	
	2. Flood	61	☐	☒	☐	
	3. Fire	71	☐	☒	☐	
	4. Noise	83	☐	☒	☐	
RESOURCES	1. Water Quality	93	☐	☒	☐	
	2. Air Quality	119	☐	☒	☐	
	3. Biota	131	☐	☒	☐	
	4. Cultural Resources	153	☐	☒	☐	
	5. Mineral Resources	163	☒	☐	☐	
	6. Agriculture Resources	165	☒	☐	☐	
	7. Visual Qualities	175	☒	☐	☐	
	8. Greenhouse Gas Emissions	183	☒	☐	☐	
SERVICES	1. Traffic/Access	187	☐	☒	☐	
	2. Sewage Disposal	197	☒	☐	☐	
	3. Education	199	☒	☐	☐	
	4. Fire/Sheriff	203	☒	☐	☐	
	5. Utilities	209	☒	☐	☐	
OTHER	1. General	219	☒	☐	☐	
	2. Environmental Safety	221	☒	☐	☐	
	3. Land Use	227	☒	☐	☐	
	4. Pop/Hous./Emp./Rec.	237	☒	☐	☐	
	5. Mandatory Findings	243	☐	☒	☐	

ENVIRONMENTAL FINDING

FINAL DETERMINATION: On the basis of this Initial Study, the Department of Regional Planning finds that this project qualifies for the following environmental document:

☐ NEGATIVE DECLARATION, inasmuch as the proposed project will not have a significant effect on the environment.

An Initial Study was prepared on this project in compliance with the California Environmental Quality Act (CEQA) Guidelines and the environmental reporting procedures of the County of Los Angeles. It was determined that this project will not exceed the established threshold criteria for any environmental/service factor and, as a result, will not have a significant effect on the physical environment.

☒ MITIGATED NEGATIVE DECLARATION, in as much as the changes required for the project will reduce impacts to insignificant levels (see attached discussion and/or conditions).

An Initial Study was prepared on this Project in compliance with the State CEQA Guidelines and the environmental reporting procedures of the County of Los Angeles. It was originally determined that the Project may exceed established threshold criteria. The applicant has agreed to modification of the Project so that it can now be determined that the Project will not have a significant effect on the physical environment. The modification to mitigate this impact(s) is identified on the Project Changes/Conditions Form included as part of this Initial Study.

☐ ENVIRONMENTAL IMPACT REPORT*, inasmuch as there is substantial evidence that the project may have a significant impact due to factors listed above as "significant".

☐ At least one factor has been adequately analyzed in an earlier document pursuant to legal standards, and has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets (see attached Form DRP/IA 101). The Addendum EIR is required to analyze only the factors changed or not previously addressed.

Reviewed by: Anthony Curzi Date: 11/8/2010

Approved by: Mark Child Date: 11/8/2010

☐ This proposed project is exempt from Fish and Game CEQA filling fees. There is no substantial evidence that the proposed project will have potential for an adverse effect on wildlife or the habitat upon which the wildlife depends. (Fish & Game Code 753.5).

☐ Determination appealed – see attached sheet.

*NOTE: Findings for Environmental Impact Reports (EIRs) will be prepared as a separate document following the public hearing on the project.

PROJECT DESCRIPTION

Project Title	Alpine Solar Project (ASP)
Lead Agency	County of Los Angeles
Contact Person	Anthony Curzi
Project Location	Northern Los Angeles County, approximately 20 miles northwest of the City of Lancaster
Project Sponsor	NRG Solar Alpine LLC
General Plan Designation	Non Urban (NU-1)
Zoning	Heavy Agriculture (A-2)

NRG Solar Alpine LLC (the Project Sponsor) proposes to construct, own, and operate a renewable energy project providing electricity generated from clean solar technology. The Alpine Solar Project (ASP or Project) will consist of a nominal 92-megawatt (MW) alternating current (AC) solar photovoltaic (PV) generating facility located on approximately 580 acres of developable area of the approximately 800-acre Project site. The Project site includes two distinct areas, defined for the purpose of this document as the Western Parcel (approximately 600 acres) and the Eastern Parcel (approximately 200 acres). The power generated by the Project will be delivered from the Project site to the California Independent System Operator (CAISO) grid by constructing two new 66-kV generation tie-lines to the Neenach Substation, which is owned and operated by Southern California Edison (SCE). The 66-kV transmission lines for the Project will be located adjacent to West Avenue C and 210th Street West (currently unpaved roads) and will extend from the Project site to the Neenach Substation.

PROJECT OBJECTIVES

California's investor-owned utilities are required, under the California's Renewable Portfolio Standard (RPS), to provide 20 percent of electricity supplied from renewable sources by 2010. Further Executive Order S-14-08 establishes RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The RPS has created a competitive market for contracts to sell renewable energy, with success determined based on "least cost, best fit" criteria.

NRG Solar Alpine LLC was formed for the sole purpose of developing, constructing, owning, and operating the Alpine Solar Project and selling its electricity and all renewable and environmental attributes to an electric utility purchaser under a long-term contract to meet California RPS goals. The overarching objective of the Applicant is to: (1) deploy proven technology to generate renewable solar electricity at a competitive cost with little to no environmental impacts and (2) to deliver the electricity to market as soon as possible.

The ASP has the following specific objectives:

- Deploy a technology that has been commercially proven and that is readily available, efficient, and environmentally friendly.
- Generate approximately 92 MW of electricity at a cost that is competitive on the renewable market.
- Provide a new source of renewable energy to assist the State of California in achieving the RPS.

- Locate the Project in northern Los Angeles County on disturbed land in a rural setting within proximity to the existing electric distribution system.
- Minimize the potential impact to the environment by:
  - Locating the Project on previously disturbed or degraded land.
  - Maximize the use of existing infrastructure (transmission lines, roads, and water sources).
  - Minimize the potential impacts to threatened and endangered species.
  - Reduce the emission of greenhouse gases from the generation of electricity.

An overview of the ASP is provided below.

PROJECT LOCATION

The Project site is located in a rural area of the Antelope Valley in the northern portion of Los Angeles County. The nearest rural residential communities are Neenach, located approximately 3 miles from the western boundary of the Project site, and Antelope Acres, located approximately 10 miles from the eastern boundary of the Project site. The closest residence is approximately 4,000 feet from the western boundary. The largest communities in the vicinity of the Project site include Rosamond, approximately 18 miles to the northeast, and Lancaster, approximately 20 miles to the southeast. Recreational opportunities in the area include the Los Angeles County Desert Pines Wildlife Sanctuary approximately 4 miles to the south, the Arthur B. Ripley Desert Woodland State Park approximately 3 miles to the south, and the Antelope Valley Poppy Preserve State Park approximately 7 miles to the southeast. Major transportation facilities include SR 14 (north-south); SR 138/Avenue D (east-west); and several public, private, and military airports.

The Project site is generally bounded by West Avenue B to the north, West Avenue C to the south, 220th Street West to the west, and 200th Street West to the east. The Western and Eastern Parcels are approximately 0.5 mile apart. The Project location is depicted on Figure PROJECT-1. Parcel numbers and owners are provided below.

Parcel Number	Owner
Western Property	
3256-015-002	NRG Alta Vista LLC
3256-015-005	Alta Vista Suntower, LLC
3256-015-006	Alta Vista Suntower, LLC
3256-015-008	Alta Vista Suntower, LLC
3256-015-010	Alta Vista Suntower, LLC
3256-015-011	Alta Vista Suntower, LLC
3256-015-013	Alta Vista Suntower, LLC
3256-015-014	NRG Alta Vista LLC
3256-015-015	Alta Vista Suntower, LLC
3256-015-016	Alta Vista Suntower, LLC
3256-015-017	Alta Vista Suntower, LLC

Parcel Number	Owner
Eastern Property	
3256-006-012	Red Dawn Suntower, LLC
3256-006-013	Red Dawn Suntower, LLC

The proposed access road will be located on 210th Street West and a portion of West Avenue C, which is currently a one-lane unpaved road. The 66-kV transmission line connecting the Project switchyards with the Neenach Substation is shown on Figure PROJECT-2.

ENVIRONMENTAL SETTING

The Project's solar power generating units and related facilities will occupy approximately 580 acres of the 800-acre site. Previous use includes intensive agriculture production up until the fall of 2009. Invasive non-native vegetation has since overtaken both parcels. The elevation of the Project site ranges from approximately 2,730 to 2,765 feet above mean sea level (amsl). The local climate is dry, with rainfall averaging less than 10 inches per year, and there are no natural perennial surface waters in the region. The prevailing wind is in an easterly direction, with a mean speed of 5.5 miles per hour (mph). Ambient temperatures vary from below freezing to the mid 100s degrees Fahrenheit.

Existing structures onsite include an approximately 100-square-foot well house, an approximately 1,400-square-foot unoccupied trailer, and a 1,400-square-foot barn. These structures will be removed upon completion of construction. The Project site has five water wells: two agricultural wells and one domestic well on the Western Parcel, and one agricultural and one domestic well on the Eastern Parcel. A natural drainage channel runs east-west across the northern portion of the Western Parcel and across the northwestern corner of the Eastern Parcel. As shown on the site plan (Figure PROJECT-2), the Project site slopes gradually toward this drainage channel; therefore, water will sheet-flow to this drainage channel. The solar PV arrays will be located at least 100 feet away from centerline of the drainage channel to provide a setback so that the Project will not affect the natural drainage channel.

A preliminary geologic and geotechnical investigation was performed to evaluate general subsurface conditions and seismic and other geologic hazards and to provide general recommendations for design and construction of the Project. The investigation showed that (1) alluvial sediments underlie the Project site and vicinity, (2) no active faults traverse the site; therefore, site-specific seismic studies will not be required, and (3) the construction of the proposed solar power plant is feasible from a geologic and geotechnical engineering viewpoint. A topographic survey was also performed to establish the site benchmarks and boundaries and to understand grading and drainage requirements.

A Phase I Environmental Site Assessment (ESA) was performed on both the Western and Eastern Parcels and a Phase II on the Eastern Parcel to identify recognized environmental conditions (REC) that may potentially affect the Project and to characterize the nature and general magnitude of impacts associated with any REC. The ESAs are included in Appendix L. According to the ESA findings there is no evidence of historic storage of any chemicals or hazardous materials on the Eastern Parcel; however, small quantities of pesticides and fertilizers may have been applied during prior farming activities. Some of the agricultural pesticides and fertilizers potentially used on the Project site could leave low-level, residual chemical constituents in the soil; however, based on the small quantities, it is unlikely that the soil or ground water on the Project site has been adversely impacted by use of pesticides and fertilizers. The Western Parcel did exhibit some surface evidence of petroleum hydrocarbon release; however, soil borings indicated that any there was limited impact to surficial soil. The findings of the ESAs address the County of Los Angeles Fire Department, Health and Hazardous Materials Division, comments dated

September 20, 2010 (included in Appendix M). It has been determined that no further site assessment, soil mitigation or management strategies are necessary.

A portion of Los Angeles County designated Significant Ecological Area (SEA) #60, Joshua Tree Woodland, abuts the eastern boundary of the Eastern Parcel of the Project, while other portions of SEA #60 are located within a mile of the northern, western and southern boundaries of the Western Parcel of the Project (see Figures PROJECT-1 and BIOTA-1). SEA #60 supports Joshua tree woodland habitat, which is becoming scarce in the western Antelope Valley. Other common species found in SEA #60 include Mojave yucca, sage, box-thorn and buckwheat. A portion of the Project's access road from SR 138 (i.e., within or adjacent to the existing alignment of 210th Street West) and a portion of the Project's generation-tie line to the Neenach Substation will be located along the eastern border of a portion of SEA #60 (see Figure PROJECT-2).

PROJECT FACILITIES

The Project consists of a nominal 92-MW-AC solar PV generating facility. The major components of the Project are described below.

Overview of Solar Photovoltaic Technology

Several types of commercially proven PV modules are being considered for the Project, including crystalline silicon-based systems, thin film, and amorphous silicon. Manufacturers of these PV modules include SunPower, First Solar, Sharp, and others. The modules will be connected to power inverters for converting direct current (DC) into AC power. Multiple step-up transformers in the PV field will deliver power to the plant step-up transformers, which will then export the power to the point of interconnection at the utility's substation.

PV Modules

The PV modules will be either crystalline silicon-based (SunPower) or thin film such as cadmium telluride (First Solar) or amorphous silicon (Sharp). When sunlight strikes a PV module, the energy absorbed is transferred to electrons in the atoms of the semiconductor causing them to escape from their normal positions and become part of the current in an electrical circuit. The PV modules convert the sunlight directly into low-voltage DC electricity that is subsequently transformed to AC electricity through an inverter. The system only operates when the sun is shining during daylight hours. The system operates at peak output when the sunlight is most intense.

The Project will use PV modules that are light enough to be manageable by one person during the construction process. PV module technology continues to evolve but representative PV modules are listed below.

Manufacturer	Peak Output (watts)	Nominal Dimensions (feet)
SunPower	305	3.5 x 5.0
First Solar	80	2.0 x 4.0
Sharp	135	3.0 x 4.5

Transmission Suspension Structures

The Project's 66-kV generation tie-lines will be suspended by either wood or steel poles with post insulators. The stronger steel poles permit span lengths of about 600 feet, while the slightly shorter wood poles have span lengths of about 300 feet. Illustrations of these poles are shown on Figure PROJECT-3 through PROJECT-8. PROJECT-9 depicts the generation tie-line route as it appears at present, and Figure PROJECT-10 presents a visual simulation of the route in the future, following generation tie-line construction for this Project.

SCE will construct a new take-off pole within its existing Neenach Substation property. The new interconnection 66-kV line will be constructed by the Project Applicant between the take-off pole and Project switchyards. SCE will complete all required work inside the boundaries of the SCE-owned Neenach Substation, along with installing the required revenue metering, retail load meters, and remote terminal unit at the generating facility.

PV FACILITY CONSTRUCTION

Construction of the Project, beginning with site preparation and grading through equipment setup and commencement of commercial operation, is expected to last approximately 12 to 18 months. Project construction will consist of three major phases: (1) site preparation, which includes clearing/grading, (2) PV system installation and testing, and (3) site cleanup/restoration. In addition, a Construction Storm Water Pollution Prevention Plan (SWPPP), incorporating best management practices (BMPs) for erosion control, will be prepared in accordance with the State Water Resources Control Board's regulations for construction. The Project will also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board or the State Water Resources Control Board. Major construction activities are described in the remainder of this subsection.

Site Preparation

Construction of the PV facility will begin with initial clearing and grading of the staging areas. The staging areas will typically include air-conditioned construction offices, a first-aid station and other temporary buildings, worker parking, truck loading and unloading facilities, and an area for assembling the PV support structures. The engineering, procurement, and construction contractor will then survey, clear, and grade road corridors to bring equipment, materials, and workers to the areas under construction.

The Project site will be fenced with a 6-foot-high chain-link security fence topped with barbed wire. Each of the fenced areas will include at least two gates, and a secured controlled main access gate will be located at the entrance of each area.

Road corridors, buried electrical lines, PV array locations, and the locations of other facilities may be flagged and staked to guide construction activities.

An SWPPP, incorporating BMPs for erosion control, will be prepared and approved before the start of construction. During site preparation, the SWPPP will be implemented, and initial erosion and sedimentation controls will be installed. In addition, water truck reloading stations (as required) will be established for dust control.

Earthwork

The Project site will be graded as shown on Figure PROJECT-2 to provide appropriate surfaces for the PV modules. The California Regional Water Quality Control Board – Lahontan Region provided comments on October 7, 2010 suggesting guidelines for the minimization of alterations to existing drainage paths (See RWQCB Comment Letter, Appendix M). Compliance with Guidelines 1 through 16 of Chapter 4.8 of the Water Quality Control Plan for the Lahontan Region would ensure that grading will not impact existing drainage paths. Equipment pads and any proposed structures will be elevated above

the 100-year floodplain and will meet applicable Los Angeles County Department of Public Works (LACDPW) standards and regulations. Dust palliatives will be used in road base and ground cover for erosion and dust control. The site will be graded (as necessary) using a balanced cut-and-fill approach, without import except for drainage control riprap rock material and structural pad engineered base material.

General earthwork for site preparation will consist of discing of existing light vegetation and leveling and compaction of the upper 12 inches of existing soil. Compaction will be performed as specified in the Project's soils report. General site preparation will also consist of minor grading for culverts, equipment pad foundations, and trenching for underground utility systems.

Offsite earthwork will include grading and construction of an at-grade all-weather (e.g., gravel) road on 210th Street West and West Avenue C, proposed as the facility access roads. Excess soil materials from the access roadway development suitable for fill will be stored onsite in stockpiles at designated locations using proper erosion-prevention methods. Materials unsuitable for compaction, such as debris and large rocks, will be disposed of onsite at an acceptable location. Top soil (if any) will be stockpiled for reuse in landscaped areas around the Project. At the end of construction, soil stockpiles will be spread onsite where appropriate as to not impact natural drainage. Compaction will be performed as specified in the Project's soils report.

Construction Water Use

Construction water will be supplied by onsite groundwater wells. The use of construction water will be limited to soil conditioning and dust suppression. Up to 300 acre-feet (AF) of water may be required during construction, with actual water use dependent upon rainfall during construction.

There are five existing water supply wells onsite—three wells have been in agricultural use and two were used as private residential wells. The onsite well evaluations show that the historical production rates and current pumping capacity greatly exceed the water demand requirements of the Project. Portable toilets will be used for onsite personnel use during construction and operation. Drinking water will be trucked to the site. Effluent generated during construction will be removed to an offsite treatment facility.

PV System Installation

PV system installation will include earthwork, grading, and erosion control, as well as erection of the PV modules, supports, and associated electrical equipment.

The PV modules require a moderately flat surface for installation. Some earthwork, including grading, fill, compaction, and erosion control may be required to accommodate the placement of PV arrays, concrete for foundations, access roads, and drainage features. Control of erosion during construction will be in accordance with the Construction SWPPP and may include the use of various BMPs including but not limited to silt fencing, straw bale, temporary catch basins, inlet filters, and truck tire muck shakers, which may be installed to reduce the adverse effects of erosion and sedimentation during construction.

Construction of the PV arrays will occur at a rate of approximately 0.5 MW per day. Construction of the PV arrays will include the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Concrete will be required for the footings, foundations, and pads for the transformers, electric enclosures, and the O&M building. Concrete will be produced at an offsite location by a local provider and will be transported to the Project site by truck. The PCS housing the inverters has a pre-cast concrete base. Final concrete specifications will be determined during detailed design engineering, but any related production will meet applicable building codes.

Wastes that will be generated during construction are all non-hazardous and may contain cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. No hazardous waste is expected to be generated during construction of the Project. However, field equipment used during construction will contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Construction Workers, Hours, and Equipment

The onsite construction workforce will consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction will generally occur during daylight hours, Monday through Friday. Weekend and non-daylight work hours may be necessary to make up schedule deficiencies or to complete critical construction activities. For instance, during hot weather, it may be necessary to start work earlier to avoid pouring concrete during high ambient temperatures. Construction activities will be conducted consistent with Los Angeles County Code, Section 12.08.440, regarding hours of construction. Table PROJECT-1 provides a summary of construction details.

TABLE PROJECT-1
Construction Duration, Equipment, and Workers by Activity Equipment to Be Used During Construction
Alpine Solar Project

Number of Pieces	Equipment	Purpose	Duration (Months)
Site Preparation and Clearing/Grading			
3	4,000-gal Water Truck	Dust Control/Compaction	3
4	Graders	Excavation	2
2	25-cubic-yard Paddle Scrapers	Excavation	2
4	10-ton Rollers	Dust Control/Compaction	3
Underground Work (Boring, Trenching, Installing Conduit)			
3	Small Backhoe	Excavation/Backfill	6
3	Small Sheepsfoot Roller	Compaction	6
3	4,000-gal Water Truck	Dust Control/Compaction	3
16	5-cubic-yard Dump Truck	Excavation/Backfill	10
System Installation			
16	4x4 Forklift	Material Staging	10
5	Truck-Mounted Pile Driver	Post Installation	8
32	ATV Vehicles	Material Staging/Transp	10
80	P/U Trucks	Material Staging/Transp	10
6	Small (5-kW) Generators	Post Installation	10
Testing			
16	P/U Trucks	Transportation	12

TABLE PROJECT-1
Construction Duration, Equipment, and Workers by Activity Equipment to Be Used During Construction
Alpine Solar Project

Number of Pieces	Equipment	Purpose	Duration (Months)
2	20-kW Generator	Testing	12
Cleanup/Restoration			
2	Grader	Final Cleanup	1
Note: Assumes all water comes from onsite water wells.			

Construction Schedule
The construction activities will be accomplished in 12 to 18 months (shown on Figure PROJECT-11). Construction on the Western Parcel is anticipated to start first and may conclude before the start of construction on the Eastern Parcel, or construction may overlap between the two parcels.

PROJECT OPERATION

Once placed into service, the Project typically will be operated by one to two employees onsite Monday through Friday, every week, with regular personnel visitations for security, maintenance, and system monitoring.

As the Project's PV arrays produce electricity passively, maintenance requirements will be very minimal. Any required planned maintenance will be scheduled to avoid peak-load periods, and unplanned maintenance will typically be responded to as needed depending on the event. Preventive maintenance kits and certain critical spares will be stored onsite while all other components will be readily available from a remote, climate-controlled warehouse facility. Other operational details are summarized as follows.

Maintenance Activities

Project maintenance performed onsite will consist of equipment inspection and replacement. Maintenance will occur during daylight hours where possible. However, maintenance activities on the PV modules and DC systems will be performed at night.

Fencing

As previously mentioned, to ensure the safety of the public and the facility, the property will be fenced and signs will be posted. Access to the site will be controlled, and gates will be installed at the roads entering the property. The fence will be equipped with a perimeter detection system to monitor any intrusion into the property. Other security measures under consideration include the potential deployment of forward-looking infrared cameras at select locations on the property.

Water Use

The annual water consumption for facility operations, including periodic PV module washing and domestic (potable) use, is less than 2 AF. This water will be pumped from wells located on the Project site, treated as needed for use onsite, or purchased from a local cleaning contractor and transported by truck to the site. Potable water for use in the O&M building will be provided by a source approved by LACDPH.

If, during the initial 15 years of Project operations, public water (potable and/or reclaimed water) becomes available via a public pipeline within 1 mile of the Project, the Project Owner will utilize such water if such water is available in sufficient long-term quantity and quality at a unit price that is economically viable for the Project; and if the Project can acquire a right-of-way using commercially reasonable efforts in which to construct and operate a pipeline connecting to such a public pipeline.

Wastewater Generation

No significant wastewater will be generated from the PV array operations. The PV panel wash water will be demineralized water and only contains dust washed off of the panels. This wash water will be allowed to soak into the ground and evaporate as it drips off the PV panels. Domestic wastewater, collected from sinks, toilets, and other sanitary facilities, will be discharged to an onsite septic system. A septic system, which will be permitted through the LACDPH, would provide effluent disposal for permanent facilities. The septic system will be located as presented on Figure PROJECT-2.

Plant Lighting System

The plant lighting system will provide O&M personnel with lighting in both normal and emergency conditions. The system will be designed to provide the minimum lighting needed to achieve safety and security objectives and will be shielded and oriented to focus lighting on the desired areas, minimizing light spillover.

Fire Control

The PV modules and ancillary equipment are constructed of fire-retardant material. Additionally, routine weed abatement and landscape maintenance will occur. The O&M building will be equipped with a fire suppression system consistent with Los Angeles County Building Codes. As such, the Project represents a negligible increase in fire potential. However, the Applicant will have a fire prevention plan consistent with applicable County regulations and approved by the LACFD that provides appropriate access to the Project site. Water storage will be included on the Project site to be used by the LACFD for suppression of possible vegetation fires.

The Project will comply with applicable codes, ordinances and requirements of the Land Development Unit of the LACFD for fire and life safety. These include regulations concerning construction, access, water main, and fire water flow. Suggested conditions are outlined in the instructions provided in the Fire Department comment letter dated September 20, 2010, included in Appendix M of this document. Additionally, erosion control, watershed management, vegetation and fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, will be addressed during the building permit process according to the Fire Department Forestry Division's requirements.

Solid and Non-hazardous Waste

The Project will produce a small amount of waste associated with maintenance activities. PV plant wastes may include broken and rusted metal, defective or malfunctioning modules, electrical materials, empty containers, and other miscellaneous solid wastes, including the typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Any defective or broken solar modules will be returned to the manufacturer for recycling.

Hazardous Waste

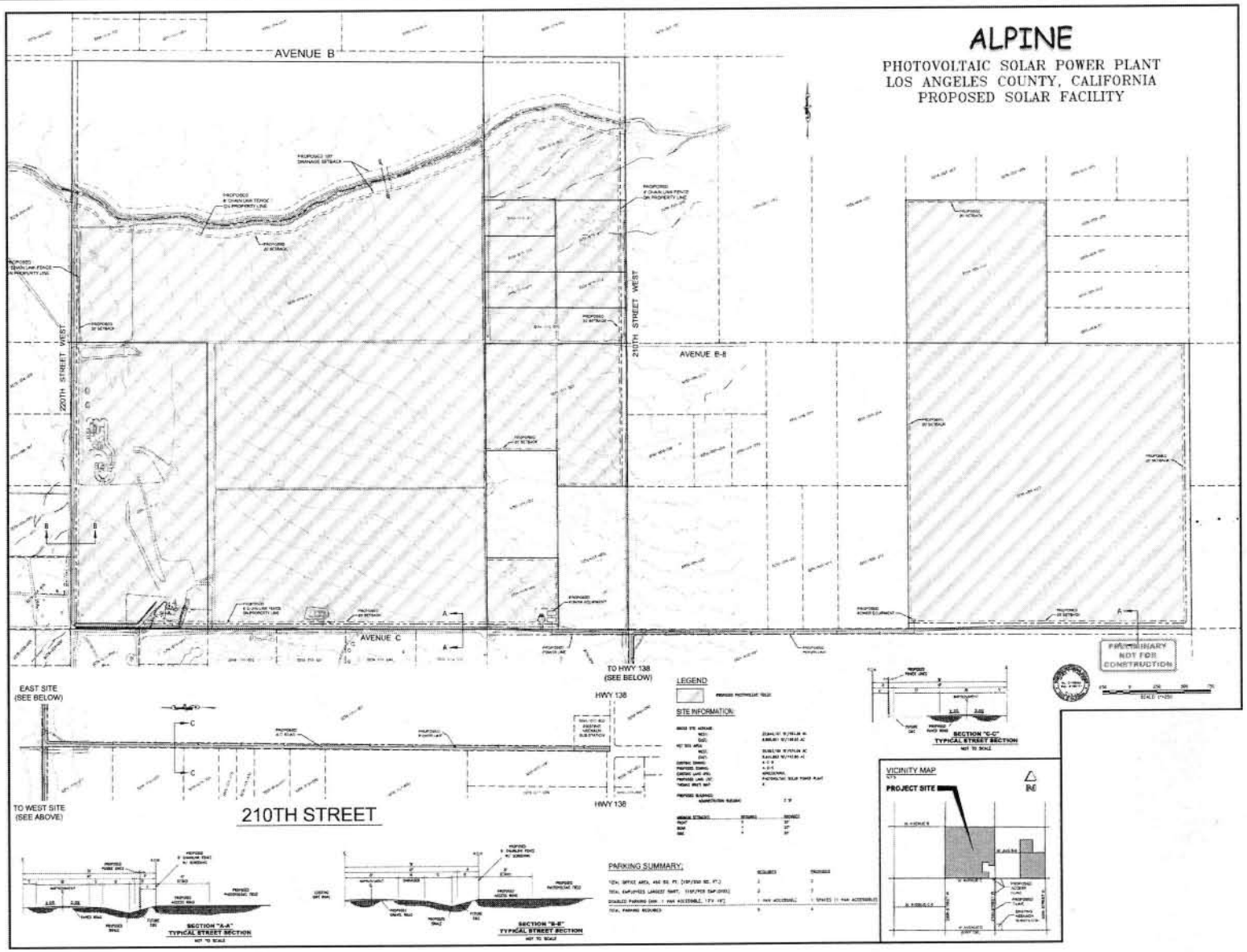
A potential hazardous waste that could be generated during operation of the facility is used biodegradable dielectric fluid and mineral oil from the transformers and miscellaneous electrical equipment. The spent oil will be collected and delivered to a recycling company at the time it is removed from the equipment. This material will not be stored onsite.

If thin film modules containing cadmium-telluride are installed, a potential hazardous waste could be the materials contained within the solar modules. In the event of a module malfunction, the module manufacturer's pre-funded recycling program will be used to collect and recycle the modules. Workers will be trained to properly identify and handle hazardous wastes in the event a hazardous waste is generated at the site.

PLANT CLOSURE

The planned operational life of the facility is 30 years. However, if the facility continues to be economically viable, it could be operated for a longer period. Procedures set forth in a decommissioning plan will be implemented. The decommissioning plan will include the following:

- Description of the proposed decommissioning measures for the facility and for all appurtenances constructed as part of the facility.
- Description of the activities necessary to restore the site if the decommissioning plan calls for removal of all equipment and appurtenances.
- Discussion of decommissioning alternatives other than restoration of the site.
- Presentation of the costs associated with the proposed decommissioning measures and the source of funds to pay for the decommissioning.
- Discussion of conformance with applicable regulations and with local and regional plans.



Source: Joseph E. Bonadiman & Associates, Inc., 2010.

ES060110104223SCO400647.AR.03.01 NRG_Alpine_sitemap.ai 7/10

Figure PROJECT-2
Site Plan
Alpine Solar Project
July 2010

CH2MHILL

RESOURCES - 1. WATER QUALITY

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Is the project site located in an area having known water quality problems and proposing the use of individual water wells?
b.	☒	☐	☐	Will the proposed project require the use of a private sewage disposal system?
	☐	☒	☐	If the answer is yes, is the project site located in an area having known septic tank limitations due to high groundwater or other geotechnical limitations *or* is the project proposing on-site systems located in close proximity to a drainage course?
c.	☐	☒	☐	Could the project's associated construction activities significantly impact the quality of groundwater and/or storm water runoff to the storm water conveyance system and/or receiving water bodies?
d.	☐	☐	☒	Could the project's post-development activities potentially degrade the quality of storm water runoff and/or could post-development non-storm water discharges contribute potential pollutants to the storm water conveyance system and/or receiving bodies?
e.	☐	☐	☒	Other factors? Violate any water quality standards or waste discharge requirements? (CEQA Checklist, IX. Hydrology and Water Quality. a.) 1. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (CEQA Checklist, IX. Hydrology and Water Quality. b.) 2. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (CEQA Checklist, IX. Hydrology and Water Quality. c.) 3. 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? (CEQA Checklist, IX. Hydrology and Water Quality. d.)

The site contains three agricultural production wells and two domestic wells. Groundwater for the project will be supplied by one or more of the agricultural production wells, which are described in Table WATER-1.

TABLE WATER-1
Summary of Existing Wells at the Project Site

Groundwater Well	Location	Perforation Depth	Historical Use (AFY)	Projected Use (AFY)*
Well 08N15W07N002S (agricultural production well; not currently in use)	Along West Avenue C (southwest corner of Western Parcel)	Unavailable	None	0-2
Well 08N15W07P001S (agricultural production well)	Along West Avenue C on Western Parcel	300 to 750 feet below top of casing	1,137	0-2
Well 08N15W08L001S (agricultural production well)	East of 210th Street Western on Eastern Parcel	Unavailable	1,000	0-2

AFY: acre-feet per year

* Projected use is based on the water requirements of the project during operation (2 AFY). A range is shown among the three available agricultural production wells because it is unknown at this time which of these wells would be used for the project's water supply. Water use during operation would be fixed at a maximum of 2 AFY over the 20-year projection period.

Historical Water Requirements

Total historical water requirements in the Antelope Valley, consisting of agricultural, municipal and industrial (M&I), and environmental water uses, are illustrated in Figure WATER-2. The total water requirements have varied greatly throughout the historical period, primarily affected by agricultural water use. During the period of agricultural expansion through 1950, the Antelope Valley experienced the greatest increase in water requirements from early development to nearly 360,000 AFY. Agricultural water demand comprised the vast majority of the total requirements through that period, increasing to nearly 350,000 AFY by 1950; at that time, M&I use was about 10,000 AFY. During the period of peak agricultural activity through the early 1970s, total water requirements remained high, between about 300,000 and 370,000 AFY. Through that period, agricultural water use was slightly declining, and M&I water requirements were gradually increasing, from about 10,000 to 30,000 AFY.

With the subsequent significant decline in agricultural activity through the early 1990s, total water requirements substantially decreased, from approximately 300,000 to about 150,000 AFY, primarily as a result of the substantial decline in agricultural water demand from about 260,000 AFY to about 70,000 AFY. During the latter half of that period of agricultural decline, M&I water requirements increased from about 30,000 AFY to about the same as the agricultural water demand, about 70,000 AFY, by 1990. Both agricultural and M&I water requirements increased at comparable rates throughout the 1990s. By 2000, total water requirements, by then including a small amount for environmental uses, had increased to approximately 255,000 AFY. Since 2000, total water demand has remained generally stable, a result of a generally offsetting increase in M&I water use and decrease in agricultural water use. By 2006, the agricultural water demand was about 114,000 AF; total M&I water requirements were about 118,000 AF (105,000 AF for all uses by the main purveyors and about 13,000 AF of municipal-type use by mutual, small private and rural residential users); and environmental water use was about 9,600 AF to maintain wetlands and recreational lakes.

c. *Could the project's associated construction activities significantly impact the quality of groundwater and/or storm water runoff to the storm water conveyance system and/or receiving water bodies?*

The primary concern with impacts to groundwater and stormwater runoff related to construction activities is hazardous material infiltration, sedimentation, and soil erosion. Hazardous materials, such as solvents associated with mechanized equipment, would be stored and used in accordance with manufacturer's specifications and applicable hazardous material regulations, reducing potential impacts to groundwater to less than significant levels.

The Project would require site grading and preparation to place the PV modules. The proposed PV modules are the only Project components that would be placed within areas mapped FEMA Zone A, or areas most likely to be affected by surface water. These structures are placed on steel piers or piles driven into the prepared soil sub-base and elevated above the 100-year floodplain. Water can flow unimpeded beneath the PV modules and therefore would not impact flows across the Project site.

An SWPPP incorporating BMPs for erosion control would be prepared and approved before the start of construction. During site preparation, the SWPPP would be implemented, and initial erosion and sedimentation controls would be installed. This plan would be in accordance with the SWRQCB's regulations for construction, including Land Development Guidelines 1 through 16 of Chapter 4.8 of the Water Quality Control Plan for the Lahontan Region (see Appendix M for comment letter from the California Regional Water Quality Control Board – Lahontan Region). The Project will also comply with applicable post-construction water quality standards adopted by the RWQCB or the SWRCB. These plans would detail the mitigation measures that would be used at the site, such as the construction of local soil berms and a detention area to contain stormwater runoff, the establishment of temporary erosion control measures (such as the installation of silt fences and fiber rolls) to minimize erosion in active grading areas, and the use of water for dust control.

In addition, the depth of groundwater is expected to be at least 150 feet below grade (GeoSoils, 2008). Because of the depth to groundwater, the short-term and temporary nature of construction, and the implementation of SWPPP BMPs as described above (which would minimize the potential for construction-related discharges and associated impacts), it is not expected that construction of the facility would have a significant impact on groundwater quality.

d. *Could the project's post-development activities potentially degrade the quality of storm water runoff and/or could post-development non-storm water discharges contribute potential pollutants to the storm water conveyance system and/or receiving bodies?*

The generating facility would occupy approximately 580 acres of the 800-acre site. No significant wastewater would be generated from operation of the PV modules. The PV module washwater would be demineralized water and would contain only dust washed off the panels. This washwater would be allowed to soak into the ground and evaporate as it drips off the PV modules. Operation of the Project would, therefore, not degrade the quality of stormwater runoff or contribute potential pollutants from non-stormwater discharges. Impacts would be less than significant.

e.1. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

The Project would use groundwater to meet the estimated water requirements of about 2 AFY on an ongoing basis for domestic and maintenance purposes. This is substantially less than the 2,137 AFY used onsite for recent farming activity. On a unitized basis across the 800-acre site, this equates to about 0.003 AFY. Compared to typical land uses, where unit water requirements for both agricultural and

municipal land uses are within an overall range of about 3 to nearly 7 AFY (Luhdorff & Scalmanini, 2010), the water requirements are exceptionally small. In addition, these water requirements are substantially less than the 0.1 to 0.125 AFY of available water if sustained yield is allocated as discussed above under Water Availability.

The Project also would use groundwater to meet the estimated water requirements of about 300 AFY during construction (a period of about 36 months). On a unitized basis across the 800-acre site, this equates to about 0.375 AFY. Again, this is exceptionally small compared to typical agricultural and municipal land uses, much less than the 2,137 AFY recently used onsite, and would be temporary.

The Project is a notable exception to traditional land uses in the Antelope Valley in that it represents a locally large area, but with associated water requirements which fall well below a conservative allocation of groundwater yield. Consequently, its water use can be considered to be, without special provisions, consistent with sustainable use of groundwater at the scale of the entire Antelope Valley.

e.2. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

As described above, the Project would require site grading and preparation to place the PV modules. These structures are placed on steel piers or piles driven into the prepared soil sub-base and elevated above the 100-year floodplain. Water can flow unimpeded beneath the PV modules and therefore would not impact flows across the Project site. Soil would be preserved onsite through vegetation, natural soil amendments, and/or gravel. No changes to the large drainage channel would occur from the Project because the Project includes a 100-foot setback from the side of the drainage channel. Therefore, impacts would be less than significant.

e.3. 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?

Preliminary engineering plans are designed to convey runoff to mirror existing flow patterns. Current flows drain to the northeast to the large onsite drainage channel; there are no existing or planned stormwater drainage systems in the vicinity of the Project site. Review and approval of the final site engineering plans by the Department of Public Works would ensure that drainage flows do not contribute polluted runoff. Impacts would be less than significant.

Mitigation and Residual Impact

Potential impacts related to water quality would be mitigated to an insignificant level: (1) through compliance with applicable codes, standards, and ordinances; (2) by preparing and implementing a final geotechnical report containing site-specific recommendations for the Project; and (3) by implementing the following mitigation measures:

GEOTECH-1, GEOTECH-2 and FLOOD-1

Based on implementation of the above mitigation measures, the potential impacts associated with water quality would be reduced to a less than significant level.

Cumulative Impact

A list of cumulative projects considered is presented in Appendix A and shown on Figure CUMULATIVE-1. Water pollutants that could be released from development associated with the Project and other potential cumulative projects could include runoff laden with sediment, vehicle and equipment fluids, household chemicals, trash, landscaping byproducts, and other typical urban stormwater pollutants. NPDES was established to regulate stormwater pollution, and all new development including the Project would be

Appendix H
Burrowing Owl Protocol Survey

Burrowing Owl (*Athene cunicularia*) Protocol Presence/Absence Surveys for Alpine Solar Project, Los Angeles County, California

Prepared for

CH2M Hill, Inc
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Santa Barbara, CA 93101

Prepared by

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June 24, 2010

photovoltaic solar fields of approximately 580 acres within Section 7 & 8, Township 8 North, Range 15 West, within United State Geological Survey (USGS) 7.5 Series Neenach School & Fairmont Butte Topographic Quadrangles. In addition, there is approximately one linear mile long and 100 feet wide transmission corridor along 210th Street West from Avenue C to Avenue D.

Habitat and Land Use:

The proposed project area is within disturbed, fallow agriculture fields. There is evidence of recent disking within portions of the site where the soils are exposed. There is also evidence of sheep grazing. There were approximately 100 sheep on the project site on May 14th, during the phase III owl survey. Some of the existing burrows on the western portion of the site received damage from sheep grazing. The remainder of the site consists of disturbed soils and low-lying, non-native vegetation such as non-native mustard, wild sunflower and Russian thistle (*Salsola sp.*) which has colonized the majority of the site. According to eSolar representative, Michael Bass, a portion of the site was farmed for carrots as recently as August 2008, which coincides with available aerial photos. Low-lying rabbitbrush (*Chrysothamnus sp.*) scrub commonly occurs within portions of the site and along the borders. There are also two vacant homesteads within the project site. The first is located in the southwestern corner of the western parcel and consists of dozens of ornamental, non-native trees, a water tank, a concrete pad and small piles of rubbish from the previous tenants. The second is located in the northern portion of the eastern parcel. It consists of ornamental trees, a double-wide mobile home, fence posts and a barn. There is also a row of 15-20 foot tall pine trees in the eastern parcel, along the western edge and south of the vacant home. Presumably, the trees were planted as wind breaks.

The topography is relatively flat with a mild north-east sloping grade of less than 10%. The gradient empties into a large unnamed drainage along the northern project limits. There are also several large soil mounds along the southern edge of the western parcel. The drainage along the northern edge of the western parcel ranges from 15 feet high and 20 feet wide, along

Appendix I
Cultural Resources Reports

CULTURAL RESOURCE SURVEY OF 600 ACRES OF LAND FOR THE ALTA VISTA SOLAR GENERATING STATION PROJECT SITE, LOS ANGELES COUNTY, CALIFORNIA

Submitted to:

California Energy Commission
Sacramento, California

Prepared by:

TETRA TECH EC, INC.

Fred E. Budinger, Jr. MA RPA, Principal Investigator/Author
Jenna Farrell, BA, Field Director/Author

10860 Gold Center Drive, Suite 200
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Submitted by:

Alta Vista SunTower, LLC

August 2008

also forwarded a list of Native American groups or individuals that may have knowledge regarding traditional cultural properties and sacred places in the Project area. A letter was sent to each of these parties on July 7, 2008 requesting information about such properties (see Appendix F-4). To date, there have been no responses.

In addition to the SCCIC record search, the applicant studied USGS topographic maps and historic aerial maps to determine where unrecorded historic structures and features might be located. The Applicant also contacted the city of Lancaster's General Planning Department and the County of Los Angeles Regional Planning Department (via telephone) requesting information pertaining to historic resources within the vicinity of the Project area.

3.3 Archaeological Survey Methods and Results

A pedestrian field survey for the Project was conducted by Tetra Tech archaeological staff Jenna Farrell, Erica Maier, Arabesque Said, Valerie Parker, and Ben Ludwig from April 19 to 22, 2008 and July 11 and 12, 2008. The Project site area was surveyed utilizing transects spaced no greater than 20 meters (64 feet) apart and the ground surface was inspected for the presence of cultural resources.

3.4 Solar Facility Site

The proposed site is located just north of West Avenue C between 210th Street West and 220th Street West, one mile north of SR 138. The site is currently used as agricultural fields for carrots (Figure 5, Surveyed Area and 440 acre APE). The southwestern area on the property has a single family residence and fenced yard with a donkey. Past land use of the Project site includes agricultural farming since the 1950s (historic maps/aerial photography) throughout the entire site and a dirt motorcycle track (c. 2002-2005: aerial photograph) within the southern region. A large east/west trending dry wash is located along the northern boundary of the Project area.

A total of 600 acres of the Applicant-owned land was originally surveyed, but only 440 acres will be used for the Project. The entire 440 acre site APE, including a 200-foot buffer per California Energy Commission (CEC) regulations, was surveyed. Surface visibility was generally excellent (greater than 90 percent) throughout the Project site APE due to recently plowed agricultural fields. A large amount of modern trash was noted within a large dry wash along Avenue C at the western boundary of the Project area. The trash consists of computer remnants, plastic 10-gallon buckets, television, tires, rusted metal, plastic household goods (e.g., silverware container), and foliage from clearing overgrown fields. No cultural resources were identified within the Project site APE.

3.5 Transmission Line Corridor/Access Road

The proposed transmission line corridor is adjacent to an existing dirt road (210th Street West) and extends north for one mile from SR 138 to Avenue C. The entire one mile transmission line/access road corridor was surveyed with 50 feet on either side of the center line (Figure 5). Ground surface visibility was fair to good (around 70 percent) due to Joshua trees, brush, and annual grasses. No cultural resources were observed within the survey corridor.

Appendix L
Phase I and II ESAs

AVALON ENVIRONMENTAL CONSULTANTS
TUSTIN, CALIFORNIA
714 836 6632
714 836 6642 FAX

PHASE I ENVIRONMENTAL SITE ASSESSMENT,
PERFORMED AT
LOS ANGELES COUNTY TAX ASSESSOR'S
APNS 3256-015-005,006, 007, 008, 009, 010,
011, 013, 014, 015, 016, AND 017
LOS ANGELES COUNTY, CALIFORNIA 93536
PROJECT NUMBER: 0620-685-1

PREPARED FOR
ALTA VISTA SUNTOWER, LLC.
PASADENA, CALIFORNIA
JUNE 2, 2008

PREPARED BY: _____

Mohammad Navid, REA
Project Manager

REVIEWED BY: _____

Trevor D. Santochi PG, CEG
Principal

1.0 EXECUTIVE SUMMARY

Avalon Environmental Consultants, Inc. (Avalon), conducted a Phase I Environmental Site Assessment (ESA) at the request of Alta Vista Suntower, LLC. The assessment was performed by Mohammad Navid, Project Manager with Avalon. The assessment was performed at Los Angeles County Tax Assessor's APNs 3256-015-005, 006, 007, 008, 009, 010, 011, 013, 014, 015, 016, and 017, northwest of Lancaster, in the County of Los Angeles, California, on May 15, 2008. According to Alta Vista Suntower, LLC, the subject property is to be developed with a solar power plant. This Phase I ESA was performed using ASTM Standard Practice E1527-05 as guidance.

Based upon the information reviewed during this site assessment, Avalon identified the following findings:

- The subject property consists of approximately 584 acres of farmland with a farmstead at the intersection of West Avenue C and West 220th Street West. The farmstead structures appear to be newly constructed, pre-fabricated structures. The subject property has consisted of farmland dating back to at least 1952 and vacant land before, dating back to at least 1922.

- Portions of the subject property have been used for farming carrots for approximately the last two years. During the farming season, small quantities pesticides and fertilizers have been applied to the crops, however, no pesticides or fertilizers have been stored on the subject property.

Based on the above findings, Avalon concludes the following:

- The subject property appears to have a Recognized Environmental Condition (REC) as defined by ASTM Standard E1527-05 due to the use of pesticides and fertilizers on the subject property, however, based on the small quantities used, it is unlikely that the subsurface of the subject property has been adversely impacted.

  The term *recognized environmental conditions*, as defined by ASTM Standard Practice E1527-05, is the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property or into terminus ground, groundwater, or surface water of the property.

- Avalon was unable to inspect the interiors of the structures on the subject property. Based on a visual reconnaissance, it appears that most of the buildings are newly constructed, pre-fabricated structures, however, there is a potential that ACMs may exist in the subject property buildings constructed prior to 1980.

3.2 Topographic Maps

Historical topographic maps issued by the U.S.G.S. were reviewed for the subject property and the adjacent properties. The review of the maps revealed the following information:

1922- The subject property is depicted as vacant land. The surrounding properties are depicted as vacant undeveloped land.

1965- The subject property is depicted as vacant land with a farmstead along West Avenue C, east of 220th Street West. Two wells are also depicted along West Avenue C , along the southern boundary of the subject property. The surrounding properties are depicted as vacant undeveloped land.

1974- The subject property and the surrounding properties are unchanged from the previous map.

1992- The subject property and the surrounding properties are unchanged from the previous map.

No areas of environmental concern were noted in any of the maps.

3.3 Aerial Photographs

Aerial photographs were reviewed for the subject property and the adjacent properties. The review of the photographs revealed the following information:

1952- The subject property appears to be vacant farmland interspersed with natural vegetation. A small farmstead consisting of a single residence and several small sheds is located along the north side of West Avenue C, east of 220th Street West. Two irregular-shaped portions along the southern boundary of the subject property appear to be vacant land covered with natural vegetation. The surrounding properties appear to be vacant undeveloped land and farmland.

1968- The subject property appears unchanged from the previous photograph with the exception that a few of the sheds near the farmstead have been removed. The surrounding properties are unchanged from the previous photograph.

1974- The subject property appears unchanged from the previous photograph with the exception that a section of the previously unplowed portion along the southern boundary has been plowed. The surrounding properties are unchanged from the previous photograph.

1989- The subject property and the surrounding properties are unchanged from the previous photograph.

1994- The subject property appears to be vacant land. The farmstead remains along the southern portion of the subject property. The surrounding properties are unchanged from the previous photograph.

2002- The subject property and the surrounding properties are unchanged from the previous photograph.

2004- The subject property appears unchanged from the previous photograph with the exception a few of the sheds near the farmstead have been removed. The surrounding properties are unchanged from the previous photograph.

2005- The subject property appears to be mostly vacant land with the existing farmstead along West Avenue C. The irregular-shaped portion east of the farmstead, which was previously undeveloped, appears to have been developed with a dirt "Moto-Cross" motorcycle race track. The surrounding properties are unchanged from the previous photograph.

No areas of environmental concern were noted in any of the aerial photographs.

3.4 Building Permit Records

Building permit records were reviewed through the County of Los Angeles Tax Assessor's Office. The records indicated that the subject property APNs consist of vacant unimproved land.

4.0 ENVIRONMENTAL RECORD RESEARCH

4.1 Information Sources

During the course of the environmental records research, Avalon used Environmental Data Resources Radius Map™ Report No. 2230727.2s. The list of records reviewed included NPL, CERCLIS, SWLF, LUST, State Sites, RCRA, UST, AST, and ERNS (See Appendix IV, EDR Radius Map Report for a comprehensive description of each list).

4.2 Site Records

During the course of the assessment, Avalon did not encounter on-site records pertaining to potential contamination of the subject property caused by on-site operations or activities.

6.0 USER PROVIDED INFORMATION

User Provided Information includes Title Records, Specialized Knowledge, Valuation Reduction for Environmental Issues, Owner, Property Manager, and Occupant Information.

A User Questionnaire was completed by Mr. Michael Bass of Alta Vista Suntower, LLC.

		Yes	No
(1.)	**Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)**		√
(2.)	**Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)**		√
(3.)	**Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protection (LLP) (40 CFR 312.28)**		√
(4.)	**Relationship of the purchase price of the fair market value of the property if it were not contaminated (40 CFR 312.29)**		√
(5.)	**Commonly known or reasonably ascertainable information about the property (40 CFR 312.30)**		
A.	**Do you know the past uses of the property?**		√
B.	**Do you know of specific chemicals that are present or once were present at the property?**		√
C.	**Do you know of spills or other chemical releases that have taken place at the property?**		√
D.	**Do you know of any environmental cleanups that have taken place at the property?**		√
(6.)	**The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)**		√

Key Site Manger- Avalon interviewed Mr. Michael Bass of Alta Vista Suntower, LLC. According to Mr. Bass, the subject property consists of vacant land and farmland. Mr. Bass is unaware of any environmental concerns associated with the subject property.

Avalon contacted Mr. John Calandri of Calandri/SonRise Farms, LP (Calandri/SonRise), who leases and uses portions of the subject property for farming carrots. Avalon was informed that portions of the subject property have been used by Calandri/SonRise for farming over the last two years. Mr. Calandri stated that he is unaware of any USTs on the subject property or of any environmental concerns associated with the subject property.

Local Agencies- Avalon contacted the Los Angeles County Department of Public Works, Environmental Programs to inquire about any files for the subject property area. No files involving hazardous materials were found at the agency.

7.0 ADDITIONAL ANALYSIS

In addition to the site assessment, Avalon also reviewed radon testing data from the California Department of Health Services and contacted local agencies regarding lead content in drinking water.

7.1 Lead in Drinking Water

Sampling for lead in drinking water was not conducted per the Scope of Work for this Phase I Environmental Assessment. Drinking water is not currently provided to the subject property.

7.2 Radon

Avalon reviewed the *California State Radon Survey* which was conducted by the Department of Health Services (DHS) in conjunction with the United States Environmental Protection Agency (U.S. EPA). The California survey is a part of an ongoing program by the U.S. EPA to measure levels of radon in all states in the country. In this report, California was organized into nine sampling regions using general geology, climate and existing radon distribution knowledge. The geographically distributed results were later weighted for population distribution by the U.S. EPA. The subject property is located in Region 9 which includes Los Angeles, San Bernardino, Orange, Riverside, San Diego and Imperial Counties. The results of the survey indicate that over 95 percent of all homes in this region have radon concentrations below 4.0 picoCuries per liter of air (pCi/l). The average radon concentration for Region 9 is 0.6 pCi/l, well below the U.S. EPA action limit of 4.0 pCi/l.

The only definitive way to verify the presence of radon is to test the property for radon; however, due to the reported low concentrations of radon in the subject property region, it is unlikely the subject property will be impacted by the presence of radon.

obvious environmental concerns. There is a high probability that septic tanks are located in these areas of the subject property.

- Historical Site Information - The subject property has consisted of farmland with farmsteads dating back to at least 1952 and vacant land before, dating back to at least 1922. Portions of the subject property have been used for farming carrots for approximately the last two years. During the farming season, small quantities pesticides and fertilizers have been applied to the crops, however, no pesticides or fertilizers have been stored on the subject property.

- Environmental Record Search - No areas of environmental concern were identified as part of the environmental radius search.

- Additional Analysis - Published data concerning the occurrence of radon in the subject property area indicates a low potential for concern.

8.2 Conclusions

Based upon the information reviewed during this site assessment, Avalon concludes the following:

- The subject property appears to have a REC as defined by ASTM Standard E1527-05 due to the use of pesticides and fertilizers on the subject property, however, based on the small quantities used, it is unlikely that the subsurface of the subject property has been adversely impacted.

- Avalon was unable to inspect the interiors of the structures on the subject property. Based on a visual reconnaissance, it appears that most of the buildings are newly constructed, pre-fabricated structures, however, there is a potential that ACMs may exist in the subject property buildings constructed prior to 1980.

8.3 Recommendations

Based on the above conclusion, Avalon recommends the following:

- Prior to any renovation or demolition activities, a Comprehensive Asbestos Survey should be conducted by a Certified Asbestos Consultant to identify possible ACMs present in the subject property buildings.

- No further investigation at this time.