

Visual Resources / Aesthetics Analysis

DESERT GREEN SOLAR FARM

Modification to Major Use Permit 3300-09-012; (P09-012W1);

ER No. 09-05-001A

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Executive Summary

The Desert Green Concentrated Photovoltaic (CPV) Solar Farm Project Visual Analysis provides an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Borrego Springs, California.

With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Borrego Springs Community Plan, or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Borrego Springs community. As such, no mitigation measures are required or proposed.

1.0 Introduction

1.1 Purpose

The purpose of this Visual Resources/Aesthetics Analysis is to assess the potential visual impacts of the Project, determine the significance of the impacts under CEQA, and to propose measures to avoid, minimize, or mitigate potential adverse visual impacts associated with construction of the proposed Concentrated Photovoltaic (CPV) Solar Farm Project on the surrounding visual environment.

The Project is intended to allow for the installation and operation of a CPV electrical generation facility near the community of Borrego Springs in northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The energy generated by the Project would be transmitted to the existing Borrego Substation, located adjacent to Borrego Valley Road to the west of the Project site (currently operated by San Diego Gas and Electric [SDG&E]). As future population growth continues within San Diego County, the demand for electrical service will continue to increase accordingly. During the October 2007 wildfires, as well as other recent wildfire events, many residents within San Diego County experienced temporary shortages in available electrical power, due to the direct and/or indirect result of such fires. The Project represents an additional clean source of electrical power that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

1.2 Key Issues

Key issues to be evaluated in this analysis are whether the Project has the potential to adversely impact the existing visual character or quality of the affected properties and/or the physical or natural surroundings. Potential visual effects are considered from public roadways and other public vantage points in and around the Borrego Springs community. Project design attributes; the potential to remove, change, or add features that contribute to the existing quality of the visual landscape; and, potential conflicts with applicable plans or policies relating to visual resources are considered.

1.3 Principal Viewpoints to be Covered

The main parcel comprising the Project site and associated lands where infrastructure improvements would occur would be intermittently visible from a number of principal viewpoints within the Borrego Springs area, as follows:

- ∞ Palm Canyon Drive looking east
- ∞ Palm Canyon Drive looking west
- ∞ Borrego Valley Road looking southeast from north of Borrego Substation
- ∞ Looking north from Borrego Valley Airport
- ∞ Looking north across the Borrego Valley from County Route 22 (S22)

Other views may occur from surrounding public vantage points, such as the Anza-Borrego Desert State Park (i.e., Font's Point); Highway 78 (approximately nine miles to the south of the site); views looking southeast from the existing Borrego Substation; and, views looking south from Henderson Canyon Road located north of the Project site.

In addition, limited views to the Project may occur from surrounding residential, industrial, and/or agricultural uses on private lands, but would generally be visually reduced due to intervening vegetation and/or development, as well as distance. The Project site may be visible from public vantage points across the valley to the south and southeast from higher elevations, but such views would be visually reduced due to distance from the site and elevational differences.

2.0 Project Description

2.1 Project Location

The main parcel that comprises the Project site is located just east of the community of Borrego Springs, California, within northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The land to be developed with the solar CPV systems is comprised of one main parcel, with additional lands affected to support the transmission of power generated to the existing Borrego Substation, and for purposes of access and utility installation (water line). The County Assessor Parcel Number (APN) for the main facilities is APN 141-230-26 (288.29 acres, or approximately 288 acres). Additional parcels potentially affected by Project improvements may include APNs 141-210-04, -05, -06, -25, and -26 [site access, generation-tie (Gen-tie) line, and/or water line easement]; APNs 141-230-33 and -38 (private water line easement); and/or, APN 141-060-08 (Borrego Valley Road Gen-tie Route).

The Project site is located approximately 0.45 mile north of Palm Canyon Drive and approximately one mile east Borrego Valley Road. The Borrego Valley Airport is located approximately 0.3 mile south of the southern boundary of the Project site.

2.2 Project Description

Desert Green Solar Farm LLC is requesting a Major Use Permit (MUP) modification to previously-approved MUP 09-012 for the purpose of authorizing a CPV solar farm Pursuant to Section 6952 of the Zoning Ordinance. The Project would be constructed to have a net capacity of 6.5 megawatts (MW) of solar energy. The Project would consist of approximately 308 concentrating photovoltaic electric generation systems utilizing dual axis tracking (“CPV Trackers”) on the westerly portion of a 288-acre parcel in northeastern San Diego County near the unincorporated community of Borrego Springs, California. In addition to the CPV systems, the Project would include the following components:

- ☞ 12kV Generation tie line (Gen-tie): SDG&E 12kV Line Extension to Existing Borrego Substation following an existing 20’ SDG&E easement (under CPUC land use jurisdiction); or, Borrego Valley Road Gen-tie Route to existing Borrego

Substation (underground) following an existing 50' easement (on privately-held lands). Up to five dual or triple inverters and transformers

- ⊗ 300 square foot (s.f.) metal storage building (within a 1,000 s.f. breakaway-fenced and screened storage yard)
- ⊗ 15' diameter 10,000 gallon water reservoir, plus an optional 10,000 gallon water reservoir
- ⊗ 12kV switchgear to protect the Project equipment from any short-circuits occurring on the Gen-tie line
- ⊗ Ultra Capacitor Storage Unit
- ⊗ Supervisory control and data acquisition (SCADA) system enclosure (10' by 30')
- ⊗ 4" water line extended from Palm Canyon Drive (West Water Line or East Water Line alignment options)
- ⊗ 93,300 cubic yards of grading (balanced cut and fill)
- ⊗ One 100kW emergency generator on a 12' by 20' concrete pad
- ⊗ Primary Access: Primary access would occur via the proposed Palm Canyon Drive Access Route or the Borrego Valley Road Access Route. Primary access would be provided via construction of a 24' wide all-weather surface primary access road within a 28' wide graded width (in accordance with County of San Diego Fire Standards and capable of supporting 50,000 lbs).
- ⊗ Interior Circulation: 24' interior fire access and perimeter loop roads; and, interior 18' service roads
- ⊗ 30' fuel modification zone (FMZ)
- ⊗ 15' foot trail dedication to the County (trail construction not proposed)
- ⊗ 125 acres of biological open space dedicated to the County (to remain unfenced and signage for identification purposes installed)
- ⊗ 6' perimeter breakaway fencing with one foot of 3-strand security barbed wire

The Project would involve the construction of an approximately 45-acre solar energy electrical generation facility to provide electricity for public consumption. The Project would be constructed in one phase. The Project applicant has a 6.5 MW Power Purchasing Agreement (PPA) from SDG&E. The Project would interconnect at 12,000 volts (12kV); therefore the electrons would not leave the local distribution circuit. Network upgrades are not required because the Project would have an energy-only interconnection. There are no improvements needed to the recently expanded Borrego Substation. The only Project improvements needed at the

Substation would be the interconnection gear, switch, and breaker which are all contained in the Substation.

Of the approximately 288 acres, the proposed development area where the trackers would be installed, including the portion of the 12kV Gen-tie line/access route and temporary laydown yard (five acres), would total approximately 50.63 acres. An additional 2.61 acres on the 288-acre parcel would accommodate a 15-foot wide trail easement along the northern and western property boundaries (no improvements proposed at this time); however, the trail easement is not included within the Major Use Permit boundary. Approximately 125 acres of the 288-acre parcel would be dedicated as undisturbed onsite open space for biological mitigation purposes (to remain unfenced with intermittent small-scale signage installed along the perimeter); refer to Figure 2, Aerial Photograph; Figures 3A to 3C, Major Use Permit Plot Plan; and, Figure 3D, Assessor Parcel Map/Potentially Affected Lands, for illustration of the proposed Project layout and design. The remainder of the parcel (approximately 110 acres) would remain undeveloped and in its current natural state (unfenced).

Proposed Project improvements would consist of an all-weather access easement serving the Project site from either Palm Canyon Drive or Borrego Valley Road. Additionally, a Gen-tie line would be installed from the Project site to the Borrego Substation via either the SDG&E 12kV Line Extension Route or the Borrego Valley Road Gen-tie Route. Additionally, water would be supplied to the Project site via one of two optional routes via a 4-inch private water line to be extended from Palm Canyon Drive, as shown on the MUP Plot Plan; refer to Figure 3D, Assessor Parcel Map/Potentially Affected Lands.

The Project as currently designed represents a number of minor modifications to the overall design of the solar energy project previously-approved by the County on the 288-acre parcel and the adjacent 104-acre parcel to the south under MUPs 09-012 and 09-014, respectively. The Project would be permitted under a Major Use Permit modification application to MUP P09-012. Major Use Permit P09-014 is not a part of the proposed Desert Green Solar Farm Project and would not be developed by Desert Green Solar Farm LLC.

As compared to the previously-approved project, the proposed Project design would reduce the development footprint (area of disturbance) on the 288-acre parcel to 50.63 acres for the solar facilities; however, overall disturbance for the entire Project (temporary laydown yard, solar field, trail easement, and options for access, Gen-tie

route, and utility easements) would be approximately 66.89 acres. An additional 125 acres of the 288-acre parcel would be dedicated as undisturbed open space for biological mitigation purposes. The remainder of the parcel (approximately 110 acres) would remain undeveloped and in its current natural state. The Project would also reduce the overall power output to 6.5 MW (as compared to 35-40 MW as was previously approved).

The proposed Project would utilize CPV technology, rather than PV technology. While the CPV systems would have a limited height of 30 feet compared to the previously-approved 10-foot high PV systems, the overall footprint of disturbed land for the CPV systems would be 15% of the total land utilized compared to 100% for the PV system. Therefore, the overall visual impacts of the proposed CPV system would be materially less than the previously-proposed PV project. Additionally, the Project would avoid the need to construct a substation and would reduce the number of inverter stations to five (maximum) to avoid potential visual effects, in contrast to the previously-approved project as designed.

The following sections provide a summary of the Project components including proposed equipment, facilities, and infrastructure. Additionally, an overview is provided of the anticipated construction process and timing, and the operation and maintenance activities, as well as potential environmental impacts that may result from these activities.

2.2.1 Solar Generation Components

Module

Soitec's Concentrix modules are made up of a glass lens plate (Fresnel lens) and a base plate on which high-performance solar cells are mounted. The Fresnel lens focuses sunlight concentrated by a factor of 500 on the solar cells beneath.

The solar cells are optimized III-V-based triple-junction solar cells (GAP/GaInAs/Ge) in which three different types of solar cells are stacked on top of one another. Each cell is designed to convert a certain range of the solar spectrum: short wave radiation; medium wave radiation; and, infrared. For almost 20 years, multi-junction solar cells were used in space applications.

The solar modules are lightweight and surrounded by airflow both inside and outside the module. As a result, heat dissipates quickly from a solar panel. The module

temperature is dependent on the ambient temperature, solar radiation intensity and wind. The normal operating condition temperature for solar panels is 20 degrees Celsius ($^{\circ}\text{C}$) above ambient temperature, therefore, on a typical summer day at 40°C , the panel temperature would be approximately 60°C , or 172°F whereas on a typical winter day at 20°C , the panel temperature would be 40°C or 104°F . Although the panels would be hot to the touch, they would not noticeably affect the temperature of the surrounding area. The temperatures below the tracker assembly would be nearly the same if the tracker assembly were constructed out of wood or cloth.

CPV System

The CPV system uses a dual-axis tracking system. Two types of sensors are used to ensure that the focal point of the concentrated sunlight is exactly on the cells at every moment of the day: 1) astronomical positioning; and, 2) a solar sensor that seeks to position the CPV system precisely perpendicular to the sun to ensure optimum system performance.

The entire CPV system module assembly dimensions are approximately 48 feet across by 25 feet high; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details and Figure 3E CPV System/Lens Plate. Each CPV System unit would be mounted on a 28-inch steel mast (steel pole) that would be supported by either: (i) inserting the mast into a hole approximately 20 feet deep and encasing it in concrete; or, (ii) vibrating the mast into the ground approximately 20 feet deep, exclusive of the scour depth. The spacing between the tracker units would be 82 feet measured east to west and 69 feet measured north to south.



In its most vertical position and depending on foundation design, the top of each tracker would not exceed 30 feet above grade, and the lower edge would not be less than one foot above the base flood elevation (which is one foot above ground surface level). In its horizontal “stow” mode (for high winds), each tracker would have a minimum ground clearance of 13 feet - 6 inches. At night, the trackers would be positioned vertically to minimize dust collection.

CPV System Configuration

The Project would install approximately 308 CPV systems. The CPV systems would be arranged into Building Blocks (“BBs”) with each BB consisting of (i) an inverter station with two inverters, and (ii) a number of CPV systems that have a combined direct current (DC) capacity rating in kilowatts equal to about 1.3-1.4 times the inverter rated alternating current (AC) capacity in kilowatts (kW).

Inverter/Transformer Stations

A total of five inverter stations/transformers are proposed with the Project. Inverters within each inverter station convert the DC power from the solar modules to AC power. Up to five inverter stations would be installed with the Project. The inverter stations would include a medium voltage transformer to step-up the voltage from the inverter to a nominal 12kV which is compatible with the local SDG&E distribution system. Each inverter station would be constructed on a 10 foot by 40 foot concrete pad/skid. The inverter stations would be located on piers with the lower edge of the foundation skid being no less than one foot above the base flood elevation (which is one foot above ground surface level).

The internal equipment within each inverter station would be pre-wired and mounted on a skid for easy installation. A canopy or shade structure would cover each inverter/transformer station for cooling purposes and to shield the equipment from the elements.

Underground Collection System

Power would be collected from each CPV system in a Building Block and delivered to an inverter through a 1,000 volt DC underground collection system. The AC power from each inverter station would be collected and delivered to 12 kV switchgear, which serves as the connection point to the Gen-Tie lines, through 3-phase underground 12 kV rated cable.

12kV Switchgear/Ultra Capacitor Unit

The 12 kV switchgear would be constructed on a 10-foot by 10-foot (100 s.f.) concrete pad located at the northwesterly portion of the site. The pad would be constructed such that the lower edge of the foundation would be no less than one foot above the base flood elevation (which is one foot above ground surface level). The Ultra

Capacitor storage unit would be located adjacent to the switchgear. The equipment would be located on a 10 foot by 40 foot concrete pad on piers. The pad would be constructed such that the lower edge of the foundation would be no less than one foot above the base flood elevation (which is one foot above ground surface level).

Control System

Operation of the Project would require monitoring through a supervisory control and data acquisition (SCADA) system. The SCADA system would be used to provide critical operating information (e.g., power production, equipment status and alarms, and meteorological information) to the power purchaser, Project owners and investors, grid operator, and Project operations teams, as well as to facilitate production forecasting and other reporting requirements for Project stakeholders. One 10-foot by 30-foot (300 s.f.) structure would be constructed on a pad to house the SCADA equipment, as shown on the MUP Plot Plan; refer to Figure 3B. The pad would be constructed on a pad such that the lower edge of the foundation would be no less than one foot above the base flood elevation (one foot above ground surface level).

Storm Positioning System and Back-Up Power Supply

The storm positioning system would bring the CPV system into the horizontal position (“Storm Position”) in case there is an approaching storm that could be damaging to the CPV system. For the storm positioning system to function correctly, it must:

- ∞ Adequately detect a damaging storm and be able to communicate a Storm Position command to each CPV system; and,
- ∞ Have a reliable supply of electrical energy to power each CPV system into the Storm Position.

A 100kW emergency generator is also proposed to provide power to place the CPV systems in the stow position in the event that power from the local utility is lost and high winds occur. The emergency generator would be placed on a 12-foot by 20-foot concrete pad. Each pad would be constructed such that the lower edge of the foundation would be no less than one foot above the base flood elevation (which is one foot above ground surface level). A switch would be installed inside of the entrance gate to the site to allow authorized Project personnel and emergency service providers to automatically place the CPV systems in a wind stow position.

2.2.2 Project Components and Details

Operations and Maintenance

The proposed storage building would consist of a 300 s.f. metal structure, located within a 1,000 s.f. breakaway fenced and screened storage yard (chain link of 6-foot height with interwoven slats). The facility would be unmanned. The structure's foundation would be constructed such that the lower edge of the foundation would be no less than one foot above the base flood elevation (which is one foot above ground surface level).

Security, Fire Protection, and Maintenance and Security Lighting

Security

The Project site would be fenced along the entire property boundary for security with fencing that meets National Electrical Safety Code (NESC) requirements for protective arrangements in electric supply stations. Examples of acceptable fencing may include a six foot chain-link perimeter fence topped with one foot of three-strand barbed wire. All perimeter Project fencing would be “breakaway” type fencing to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris.

Signage in both Spanish and English would be placed along the perimeter fencing to warn the public of the presence of high voltage and the need to keep out. Signage would also be placed within the Project site where appropriate. Some localized security-related lighting, security personnel, and/or remotely monitored alarm systems may be required during construction and/or operations. Perimeter and safety lighting would be used only on an as-needed basis for emergencies, protection against security breach, or unscheduled maintenance and trouble-shooting.

Fire Protection

The Project site is located within and served by the Borrego Springs Fire Protection District (BSFPD). To comply with the fire code, clearing and grubbing, as necessary, in localized areas would be required for construction and access. Additionally, a Fire Protection Plan (FPP) has been prepared for the Project and is included with the application. The FPP proposes the following fire prevention measures:

- ⊗ 10,000 gallon water storage tank with fire department connection, plus an optional second 10,000 gallon water storage tank
- ⊗ County approved access gates with Knox box locks
- ⊗ Fire District approved turnaround at project entrance
- ⊗ 30' perimeter fire buffers (measured inward from fence)
- ⊗ Illuminated signage at Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker. Signage would also be placed at the ends of each interior fire access road to indicate those roads that are intended for use by emergency vehicles.
- ⊗ Emergency responder training for each shift
- ⊗ Weed whipping and maintenance of areas under panels/arrays
- ⊗ Interior Access Roads (Fire): 24' wide all-weather surfaced interior fire access and perimeter looped roads having a load bearing capacity rating of 50,000 lbs. An override switch would be installed inside of the entrance gate to the site to allow authorized Project personnel and emergency service providers to automatically place the CPV systems in a stow position.

Maintenance and Security Lighting

Lighting at the Project site would be designed to provide security lighting and general nighttime lighting for operation and maintenance personnel, as may be required on occasion. Lighting would be shielded and directed downward to minimize any effects to surrounding properties and would be used only on an as-needed basis.

Lighting would be provided next to the entrance door to the storage building and mounted at the entrance gates to allow for safe entry. Since maintenance activities are not anticipated to occur during the evening hours, lights would only be turned on if needed. All Project lighting would utilize light bulbs that do not exceed 100 watts. All lighting would be shielded, directed downward, and would comply with the County of San Diego Light Pollution Code Section 59.101 et.al.

2.2.3 Internal and External Access Roads

There are three different types of roads for the Project that would be improved to different standards: primary access, fire access, and service roads. All road surfaces would have a permeable non-toxic soil binding agent in order to reduce fugitive dust and erosion.

Primary Access Road: Operation, maintenance, and construction activities for the Project would take access from either the proposed Palm Canyon Drive access route or the proposed Borrego Valley Road access route, as shown on the MUP Plot Plan; refer to Figures 3A and 3B. Both access routes are included as part of the Major Use Permit boundary. The Palm Canyon Drive access route would include construction of a 24-foot wide all-weather paved access drive within a 28-foot wide graded width, located within existing 30-foot wide private utility and access easements. This route would connect to the facility at the southwesterly corner of the solar field. The Palm Canyon Drive access route may also include construction of the westerly water line extension.

The Borrego Valley Road access route would include construction of a 24-foot wide all-weather paved access drive within a 28-foot wide graded width, located within a 50-foot wide private utility and access easement. The Borrego Valley Road access route would connect Borrego Valley Road to the northwesterly corner of the solar field. This access route would follow along a portion of an existing dirt road north of the existing 20-foot wide offsite SDG&E utility easement, cross the SDG&E easement near the northwest corner of the site, continue thru the Cocopah nursery, and then head south to the solar facility. The Borrego Valley Road access route would also include the (underground) Borrego Valley Road Gen-tie Route.

The primary access easement would be improved to a graded width of 28 feet with 24 feet of all-weather surface in accordance with County of San Diego Fire Standards. The purpose of the primary access road is to allow for two-way access of fire apparatus and to provide access from Palm Canyon Drive to the Project site. A fire department turnaround would be provided at the end of the primary access easement at the entrance to the Project. The road would be designed and maintained to support the imposed loads of fire apparatus (not less than 50,000 lbs.) and would have an approved surface so as to provide all-weather driving capabilities.

Interior Access Roads (Fire): A series of north/south interior fire access and perimeter loop roads would be constructed to a width of 24 feet (fire access road widths may be administratively reduced with the approval of the County Fire Marshal and Borrego Springs Fire Protection District) in accordance with County of San Diego Fire Standards. The interior access roads would be designed and maintained to support the imposed loads of fire service apparatus (not less than 50,000 lbs) and would have an approved surface so as to provide all-weather driving capabilities. These interior fire access roads would be constructed between every fourth row of

north-south trackers to facilitate a maximum fire hose pull of 160 feet. In addition, the Project design includes east/west running fire access roads for connectivity and circulation. The purpose of the interior fire access roads is to allow for access of fire service apparatus throughout the Project site and in order to reach the inverter/transformer units.

Service Roads: On the north/south rows where the interior fire access roads are not proposed, service roads would be constructed to a width of 18 feet and would be constructed and maintained to support the imposed loads of not less than 15,000 lbs and support panel washing equipment vehicles. Service roads would run in a north-south direction along the west side of the columns of the CPV systems except where there would be a fire access road that would facilitate access to the CPV systems and inverter stations.

2.2.4 Traffic and Circulation

Construction Traffic

The Project would be constructed over a period of approximately six months. Trip generation for employees and delivery trucks would vary depending on the phase of construction. Based on an estimated seven round trips per tracker (308 total trackers) for both delivery trucks and workers, the total construction trip generation for completion of all work at the Project site would be 2,156 round trips, or approximately 14 round trips per workday (total construction trip generation [2,156 round trips] divided by construction timeframe [156 workdays]). It is assumed that all employees would arrive within the morning peak hour and depart within the evening peak hour, and delivery truck trips would be distributed evenly throughout a typical 8-hour-shift/day. Since the surrounding area is rural, traffic is very low on the local roads surrounding the Project site. Implementation of the Project would result in a temporary increase in traffic along these roads, but not to the level of the road carrying capacity. No road closures are anticipated during Project construction. The construction contractor would develop a Traffic Control Plan to ensure safety and efficient traffic flow in the area and on the Project site. The Traffic Control Plan would be prepared in consultation with the County of San Diego and would contain Project-specific measures for noticing, signage, policy guidelines, and the limitation of lane closures to off-peak hours (although it is noted that no requirement for lane closures has been identified).

Ongoing Traffic

During the operations phase of the Project, approximately three personnel on average would be onsite at any given time. A list of past, present, and reasonably foreseeable future development projects occurring within the area is currently being developed in conjunction with the County. If cumulative traffic impacts are anticipated with implementation of the Project, they would be mitigated by payment of a Transportation Impact Fee (TIF) or other method acceptable to the County.

12kV Gen-tie Route In order to transfer the power generated from the solar facility to the Borrego Valley Substation, the Project would utilize either the Borrego Valley Road Gen-tie Route or the SDG&E 12kV Line Extension Route, as shown on the MUP Plot Plan; refer to Figures 3A and 3B.

The POI for the Borrego Valley Road Gen-tie Route would be at the Borrego Valley Substation. The 12kV line would be undergrounded within an existing 50-foot wide access and utility easement on private lands (APN 141-060-08). The Borrego Valley Road Gen-tie Route would start at the Borrego Substation and follow the Borrego Valley Road Access Route east to a point near the northwesterly corner of the Project site, cross the existing SDG&E easement, run through a portion of the neighboring Cocopah nursery, and then trend southward to the Project boundary via the 30-foot wide Gen-tie Route. The Gen-tie Route would be part of the Major Use Permit boundary.

The 12kV SDG&E Line Extension Route would be located within the existing 20-foot wide SDG&E easement (Record #72-3377663) that extends from the Borrego Substation easterly to the POI near the northwesterly corner of the Project site. From the POI, the 12kV underground Gen-tie line would trend southerly across the adjacent Cocopah nursery, and then trend southward to the Project boundary via the 30-foot wide Gen-tie Route. All improvements to the 12kV line extension would be completed by SDG&E and are under the land use authority of the CPUC, pursuant to General Order 131D. Although the 12kV line extension is under jurisdiction of the CPUC, the analysis of the line extension is included in the Mitigated Negative Declaration (MND) for the Project for purposes of consistency with the California Environmental Quality Act (CEQA). The 12kV line extension is not included in the Major Use Permit because it is not within the County's land use jurisdiction. Therefore, improvements within the SDG&E easement would not be a part of the Major Use Permit boundary.

2.2.5 Water Line Extension

Water supplies for maintenance of the Project would be delivered to the site via either the West Water Line or the East Water Line, as shown on the MUP Plot Plan; refer to Figures 3A and 3B. The water line would connect to the proposed onsite water tank(s).

The West Water Line would be located within the proposed Palm Canyon Drive access route. The water line would be extended from its point of connection (POC) with an existing water line that lies within Palm Canyon Drive. The West Water Line would be included as part of the Major Use Permit boundary.

The East Water Line would be located within an existing dirt road traversing the Borrego Valley Airport property. The water line would be extended from its POC with an existing water line that lies within Palm Canyon Drive. The East Water Line would not be included as part of the Major Use Permit boundary and is considered an offsite improvement under the authority of the Federal Aviation Administration (FAA).

2.2.6 Telecommunication Facilities

Operation of the Project would require monitoring through a supervisory control and data acquisition (SCADA) system. The SCADA system would be used to provide critical operating information (e.g., power production, equipment status and alarms, and meteorological information) to the power purchaser, Project owners and investors, grid operator, and Project operations teams, as well as to facilitate production forecasting and other reporting requirements for Project stakeholders.

2.2.7 Site Preparation and Grading

Clearing and Grading: Construction of the Project would involve clearing and grubbing of the existing vegetation on approximately 66.89 acres; grading necessary for construction of access and CPV foundations; and, trenching for the electrical collection system communication lines, four-inch water line, and Gen-tie line to the Borrego Substation (the 12kV line extension is not included in the Major Use Permit because it is not within the County's land use jurisdiction). A Major Grading Permit would be required for the removal and re-compaction of approximately 8" of upper soil. Although the majority of land surface on the affected parcel is generally flat, limited portions of the parcel would be graded to provide a ground surface that can adequately accommodate the CPV solar panels. Grading would require an estimated

93,300 cubic yards (c.y.) balanced cut and fill. There would be no import or export of soils with the Project.

Collection System Trenching: Trenching requirements for the AC Gen-tie line and DC electrical collection system and telecommunication lines within each building block would consist of a trench up to approximately 3'-4' deep and 1'-2' wide. The trenches would be filled with base material above and below the conductors and communications lines to ensure adequate thermal conductivity and electrical insulating characteristics. The topsoil from trench excavation would be set aside before the trench is backfilled and would ultimately comprise the uppermost layer of the trench. Where possible, trenching would be located beneath roads to minimize disturbance. Excessive material from the foundation and trench excavations would be used for site leveling.

Foundations: Each CPV system would be installed on a 28-inch diameter steel mast. One foundation design calls for the mast to be concrete-encased below grade and to extend to a depth of approximately 20 feet below scour depth. The preferred installation is to install the mast to the necessary depth using a vibration pile-driver.

Soil Stabilization: In order to reduce fugitive dust and erosion, the disturbed areas, including access roads, would either be treated in one of the following three methods, or a combination of all three:

- ☞ Treatment with a permeable non-toxic soil binding agent (Preferred Method)
- ☞ Placement of disintegrated granite (DG) or other base material (Optimum for Roads)
- ☞ Seeding with native seed mix (this method would rarely be used due to the fire clearing requirements)

2.2.8 Signage

Signage in Spanish and English would be placed along the perimeter fencing to warn the public of the high voltage and the need to keep out. The proposed open space for biological mitigation purposes, consisting of approximately 125 acres, would remain unfenced with small-scale signage installed along the perimeter for identification purposes. All signage would conform to County of San Diego signage requirements for the applicable zone. No freestanding signage is proposed as part of the Project.

Illuminated signage would also be placed at Project entrance and each inverter station to identify the location and identification number of each electrical grid disconnect

and circuit breaker. Signage would also be placed at the ends of each interior fire access road to indicate those roads that are intended for use by emergency vehicles.

2.2.9 Project Schedule / Phasing

The Project may be implemented at one time and would not be phased. Construction of the Desert Green Solar Farm is anticipated to commence in 2nd quarter 2013 and would require approximately six months to complete. The Project schedule may be modified due to the date of County of San Diego approval, as well other Project approval/permits. Construction activities would occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday.

Depending on local permit requirements, some activities may occur during evening, night, and/or weekend hours, due to the scheduling of system outages and/or construction needs. Construction would commence following County of San Diego approval of permits and other entitlements, final engineering, and procurement activities.

2.2.10 Trails

The Project design includes provision of one easement to allow for future construction of recreational trails, consistent with County requirements. Pursuant to the adopted Borrego Springs Community Trails and Pathways Plan, the Project proposes dedication of a 15-foot wide trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to provide improvements for trail construction at either of these locations at this time. The proposed underground Gen-tie line on the 288-acre parcel will cross the trail easement.

2.3 General Plan Land Use Designations and Zoning

The Project site has a County of San Diego General Plan land use designation of Rural Lands with a permitted density of one dwelling unit per 40 acres (RL 40). The Project site lies within the Borrego Springs Community Plan Area of the County's General Plan. Existing zoning is General Rural (S92). No changes to either the existing General Plan land use or zoning are proposed with the Project.

2.3.1 Anticipated Permits and Agency Approvals Required

The County of San Diego will act as the Lead Agency under the requirements of the California Environmental Quality Act (CEQA). Approval from the County of San Diego would be required for grading and construction permits, as well as for right-of-way encroachment permits, if applicable, prior to commencement of ground-disturbing activities. The anticipated permits and approvals required are listed in Table 1 in the general order in which they would be obtained.

**TABLE 1
APPROVALS AND PERMITS ANTICIPATED**

Government Agency	Action/Permit
County of San Diego	<ul style="list-style-type: none"> • MUP – Compliance with Sections 1350, 2705 and 2926 of the County Zoning Ordinance • Compliance Finding - Resource Protection Ordinance • Plot Plans – Compliance with the County's Form #90 • Preliminary Grading Plan – Compliance with County grading limitations • Utilizing the previously-adopted Mitigated Negative Declaration (MND), 15162 findings • Grading Permit - Department of Public Works • Improvement Plans and Permits - Department of Public Works
State of California Water Resources Control Board	N/A

2.4 Surrounding Land Use

The Project site is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert. The Borrego Sink is located approximately four miles southeast of the Project area, and the Borrego Badlands are approximately five miles to the east.

To the north and east of the 288-acre parcel is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery and a small-scale commercial sand and gravel yard. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel.

Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type and residential uses. Refer also to Figure 2, Aerial Photograph.

The Borrego Substation is bordered to the west by Borrego Valley Road. Immediately adjacent to the north, east, and south are undeveloped lands. Further to the southeast and south are several single-family homes with intervening undeveloped/unimproved lands. Further west, across Borrego Valley Road, are agricultural-related facilities, and to the northwest are active agricultural lands.

2.5 Regulatory Framework

2.5.1 State of California Guidelines

The Project is subject to technical and environmental review pursuant to the California Environmental Quality Act, in conformance with applicable regulatory guidelines established by the County of San Diego.

Appendix G of the CEQA Guidelines states that a project has the potential for a significant impact if it will:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including, but not limited to: trees, rock outcroppings, and historic buildings within a state scenic route;
- c) Substantially degrade the existing visual character or quality of the site and its surroundings; or,
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views of the area.

In addition, CEQA Section 15064 (b) states "...the significance of an activity may vary with the setting ... an activity which may not be significant in an urban area may be significant in a rural area." This statement is applicable to the determination of the significance of a visual effect for the Project.

2.5.2 San Diego County Plans and Policies

San Diego County General Plan

The County of San Diego General Plan is intended to provide guidance for the long-term development of San Diego County. The General Plan includes various Elements that address different aspects of growth, including accommodating population growth

and housing needs, while influencing the distribution of development in order to protect scarce resources wisely; preserving the natural environment; providing adequate public facilities and services efficiently and equitably; assisting the private sector in the provision of adequate, affordable housing; and, promoting the economic and social welfare of the region. Goals, policies and objectives are provided within each of the Elements to guide future land development and ensure consistency with the County's intended vision for the future of San Diego County.

Chapter 3 – Land Use Element

Planning for Sustainability

Policies

∞ **LU-6.9 Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and, to utilize natural drainage and topography in conveying storm water to the maximum extent practicable.

Any grading required for installation of the CPV solar systems or for access and utility installation (e.g. water line) purposes would be consistent County of Grading Ordinance as enforced through the grading permit. A Major Grading Permit would be required for the removal and re-compaction of approximately 8” of soil. Although the majority of land surface on the affected parcel is generally flat, limited portions of the parcel would be graded to provide a ground surface that can adequately accommodate the CPV solar systems. Grading would require an estimated 93,300 cubic yards (c.y.) balanced cut and fill. There would be no import or export of soils with the Project.

The site conveys the same amount of water as what enters the site. Prior to construction, preparation of erosion control plans and/or incorporation of best management practices (BMPs) to minimize potential erosion and sedimentation impacts during grading and construction would be required.

Chapter 5 – Conservation and Open Space Element

Visual Resources

Goal

∞ **Goal COS-11 Preservation of Scenic Resources.** Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

Policies

∞ **COS-11.1 Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

∞ **COS-11.2 Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

Only two highways in the unincorporated County have been designated as a State Scenic Highway: State Route 78 (SR-78) through the Anza-Borrego Desert State Park and State Route 125 (SR-125) between Interstate 8 and State Route 94 (SR-94). State Route 78 is located approximately 10 miles to the south of the Project site. Therefore, the Project is not likely to result in any changes to the scenic resources within the designated scenic highway corridor of SR-78, because: 1) the Project site is 10 miles away from SR-78; and, 2) the Project would have a short profile (generally less than 30 feet in height). In addition, there is a County Designated Scenic Highway in the Project area described as San Felipe Road, Montezuma Valley Road, Palm Canyon Road, Peg Leg Road, and Borrego Salton Seaway (S22). This route is not likely to result in any changes to the scenic resources within the designated scenic highway corridor of route described above, because: 1) the Project site is two miles away from the road at its closest point and at a lower elevation; and, 2) the Project would have a short profile (generally less than 30 feet in height). Therefore, the Project would be consistent with the stated Policy.

∞ **COS-11.3 Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning;
- Integration of natural features into the project;
- Appropriate scale, materials, and design to complement the surrounding natural landscape;
- Minimal disturbance of topography;
- Clustering of development so as to preserve a balance of open space vistas, natural features, and community character; and,
- Creation of contiguous open space networks.

As stated, approximately 125 acres of the affected parcel is proposed to be designated as open space for biological mitigation purposes, allowing the majority of the parcel to remain in its natural state. The Project design generally concentrates development in the southwestern portion of the site.

To ensure that development respects the character of the surrounding community character, the Project would incorporate certain measures such as building materials and colors that would not result in glare or contrast with the natural landscape (e.g. earthtoned surfaces), building elements of limited height and scale, and minimal Project lighting and signage. Additionally, although the majority of land surface on the affected parcel is generally flat, limited portions of the parcel would be graded to provide a ground surface that can adequately accommodate the CPV solar systems. Grading would require an estimated 93,300 cubic yards (c.y.) balanced cut and fill. The remainder of the site would be grubbed and cleared, generally allowing the topography of the site to reflect its natural condition. Only minor grading would be required to allow for the access/utility easements.

∞ **COS-11.7 Underground Utilities.** Require new development to place utilities underground and encourage “undergrounding” in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

As proposed, the water line extension from Palm Canyon Drive (West Water Line or East Water Line) would be undergrounded with the Project. The Gen-tie line would be extended from the northwestern corner of the Project site to the Borrego Substation via either the proposed Borrego Valley Road Gen-tie Route or the SDG&E 12kV Line Extension Route, as shown on the MUP Plot Plan; refer to Figures 3A and 3B. The Gen-tie line for the Borrego Valley Road Gen-tie Route would be undergrounded within an existing 50-foot wide access and utility easement on private lands (APN 141-060-08) and therefore would not be visible within the landscape. The 12kV SDG&E Line Extension Route would be located within the existing 20-foot wide SDG&E easement (Record #72-3377663) that extends from the Borrego Substation easterly to the POI near the northwesterly corner of the Project site. From the POI, the 12kV underground Gen-tie line would trend southerly across the adjacent Cocopah nursery, and then trend southward to the Project boundary via the 30-foot wide Gen-tie Route. All improvements to the 12kV line extension would be completed by SDG&E and are under the land use authority of the CPUC, pursuant to General Order 131D. Therefore, it is unknown at this time whether the

line would be installed above ground, or if it would be undergrounded; however, if the line were to be installed above ground, such improvements would occur within the utility easement where existing SDG&E utility poles are visible. Therefore, such improvements would not represent a new visual element within the

☞ **COS 13.1 Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.

Lighting at the Project site would be designed to provide security lighting and general nighttime lighting for operation and maintenance personnel, as may be required on occasion. Lighting would be shielded and directed downward to minimize any effects on surrounding properties.

Lighting would be provided at the entrance door to the storage building and mounted at the entrance gates to allow for safe entry. Illuminated signage would be installed at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker.

Since maintenance activities are not anticipated to be completed during the evening hours, lights would only be turned on if needed. All Project lighting would utilize light bulbs that do not exceed 100 watts. All lighting would comply with the County of San Diego Light Pollution Code Section 59.101 et.al. Therefore, the Project is consistent with the stated Policy.

San Diego County Zoning Ordinance

Portions of the County Zoning Ordinance that may affect the assessment of visual impacts are generally zoning overlay designators. Relevant designators include:

- ☞ B – Community Design Review Area
- ☞ C – Airport Land Use Compatibility Plan
- ☞ D – Design Review Area
- ☞ G – Sensitive Resource
- ☞ H – Historic/Archaeological Landmark or District
- ☞ J – Special Historic District
- ☞ S – Scenic Area

The Project site is subject to the “C” Airport Land Use Compatibility Plan Area Regulations of the County Zoning Ordinance. The project has been found to be

consistent with the Airport Land Use Compatibility Plan Area Regulations as determined by an Airport Land Use Commission Consistency Determination issued by the San Diego County Regional Airport Authority.

None of the other above designators apply to the Project site or other associated lands affected by Project-related infrastructure improvements (i.e., transmission line route or Borrego Substation).

2.5.3 Design Policies and Guidances

Borrego Springs Community Plan (August 2011)

The Borrego Springs Community Plan is supplemental to the County General Plan and provides goals and policies to guide development of this area of northeastern San Diego County, including the community of Borrego Springs.

- ⌘ **Goal-LU 2.7** Renewable-energy-related industrial uses that are compatible with the existing environment and do not detract from the unspoiled nature of the area, detract from community character, or impair local economic development.
- ⌘ **Policy-LU 2.7.1** Require all proposed energy-generation (wind and solar) uses to fully assess community-wide impacts to environmental resources, community character and economic resources to the Plan area.

The proposed Project is subject to CEQA review, which requires that the community-wide impacts would be fully assessed. In addition, a Land Use/Community Character Analysis has been prepared by the Project (available under separate cover) to assess the Project's compatibility with surrounding uses. The Project is an allowed use under the existing General Plan land use designation (RL 40) and zoning (S92) with approval of the requested MUP modification and would not result in a conflict with surrounding land uses. Therefore, the Project would be consistent with the stated Goal and Policy.

- ⌘ **Policy-COS 1.3.2** Discourage new energy transmission towers within the Plan area.

As proposed, the Gen-tie line would extend from the northwestern portion of the Project site, along either the Borrego Valley Road Gen-tie Route (underground), or the 12kV SDG&E Line Extension Route (above ground or underground) to the existing Borrego Substation. All improvements of the 12kV line extension within the SDG&E easement would be completed by SDG&E and are under the land use

authority of the CPUC pursuant to General Order 131D, and would either be undergrounded or would be above ground; however, existing utility poles are located within this easement, and therefore, if this Gen-tie route is selected, the Project improvements would not create a new visual element within the landscape. Although the 12kV line extension is under jurisdiction of the CPUC, the analysis of the line extension was included in the Mitigated Negative Declaration for CEQA purposes under the original permit application. The 12kV line extension is not included in the Major Use Permit because it is not within the County's land use jurisdiction and therefore, the Project would be consistent with the stated Policy.

∞ **Policy-COS-1.9.1.** Require shielding for all new and retro-fitted exterior light fixtures such that no ray of light exiting an exterior lighting fixture directly from its light source falls outside the boundaries of the legal parcel on which the fixture is situated.

During operation, nighttime lighting would be restricted to ongoing maintenance and security lighting purposes, and restricted to an as-needed basis. The proposed security lighting shall be: (1) directed downward; (2) directed in a manner that prevents light pools from extending beyond the site boundary; and, (3) shielded to prevent light from escaping vertically into the night sky. Therefore, the Project would be consistent with the stated Policy.

∞ **Policy-COS-1.9.1.** Limit the maximum night-time intensity of light reflected from any surface of any land, improvement, or structure.

During daytime, the CPV panels would not result in substantial glare. CPV panels are designed to absorb the maximum amount of sunlight possible. The CPV panels are manufactured with low-glare materials. In addition, the chain-link fence around the Project site would be made of galvanized, non-reflective materials and would be limited to six feet in height. Additional project facilities (e.g. inverter stations, storage building) would also be surfaced with non-reflective materials/paints so as to minimize the potential for glare effects to occur. Therefore, the Project is consistent with the stated Policy.

3.0 Visual Environment of the Project

3.1 Project Setting

3.1.1 Solar Generation Facilities

The 288-acre parcel is presently undeveloped. Vegetation largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover consisting of a mixture of Mediterranean grass and mustard. Soil types found on the affected parcels also generally support bur-sage, saltbush, and annual grasses and forbs. Some native wildflower species occur intermittently, with a number of dead mesquite trees also present in various locations on the parcel. Refer to Figures 4 through 8 which show existing conditions.

The Project area and the Borrego Valley in general are underlain by Quaternary alluvium. The vast majority of the Project area is mapped as Indio silt loam, 0 to 2 percent slopes; Indio silt loam, saline, 0 to 2 percent slopes with pockets of Rositas fine sand, 0 to 2 percent slopes; and, Rositas fine sand, hummocky, 5 to 9 percent slopes.

The overall topography is generally descends gradually from northwest to southeast across the region. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout. Elevations on the 288-acre parcel range from approximately 529 feet above mean sea level (amsl) to 554 feet amsl.

There are no channels or indications of linear flow on the affected parcels, including in the lowest areas between the ridge-like dunes. Coyote Creek is located to the east of the Project area.

The average January low temperature for the area is 38° Fahrenheit; the average July high temperature is 106° Fahrenheit. Average annual rainfall for the Borrego Springs area is approximately 6.3 inches.

3.1.2 Transmission Facilities

The proposed transmission routes would generally follow property boundaries, existing paved or unimproved dirt roads, and other areas where human activity has occurred. All routes would connect to existing SDG&E facilities or run within existing

or proposed easements; refer to Figure 2, Aerial Photograph. These lands support similar vegetation as the 288-acre parcel, with generally level topography.

3.1.3 Surrounding Land Uses

The Project site is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert. The Borrego Sink is approximately four miles southeast of the Project area, and the Borrego Badlands are approximately five miles to the east.

To the north and east of the Project site is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery and a small-scale commercial sand and gravel yard. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel. Refer also to Figure 2, Aerial Photograph; Figure 6, Surrounding Land Uses, and Figures 7 and 8, Existing Views of Surrounding Land Uses. Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial and commercial type uses and residential uses.

The Borrego Substation is bordered to the west by Borrego Valley Road. Immediately adjacent to the north, east, and south are undeveloped lands. Further to the southeast and south are several single-family homes with intervening undeveloped/unimproved lands. Further west, across Borrego Valley Road, are agricultural-related facilities, and to the northwest are active agricultural lands.

3.1.4 Visual Quality Definitions

Visual quality is affected by the aesthetic characteristics of a particular area. Such aesthetic elements may include physical characteristics, as well as the perception of the viewer. Physical characteristics influencing the visual quality of an area may include such features as topography, landform, natural vegetation, water bodies, visual diversity, and visible coloring. Viewer perception is generally influenced by vividness, intactness, harmony, visual integrity, adjacent scenery, and/or visual unity. These elements all influence the overall evaluation of the quality of a particular view.

Areas with high visual quality may offer physical characteristics such as varying vertical relief; established natural vegetation with visually pleasing form, color, texture or pattern; water features; or, other elements that create a visually unified landscape. Particular views with high visual quality may include those with distinct focal points or

patterns; enhanced or existing natural scenery; compatibility with the character of the surrounding landscape; and/or, a unique visual setting within the surrounding area.

Moderate visual quality is generally considered to be represented by views that are interesting, but not visually exceptional with regard to landforms or other physical characteristics. Such views may consist of dominant types of vegetation; water features; colors within the landscape; or, other elements that visually unify a particular view or landscape. Contributing factors may include a varied composition that includes visual patterns created by landscape elements; enhancement of views from adjacent scenery; and/or, a visual setting that is distinguishable from, as well as visually similar to, views within the surrounding area.

Low visual quality may be represented by areas with limited or no existing landforms or changes in topography; sparse or indiscernible vegetation types, due to density; absence of water features; monotonous color palettes; or, limited visual elements of varying visual interest. Visual quality may be considered to be low if views are varied, but visually disconnected; lack perceivable visual patterns; are adjacent to views that devalue the existing scenic quality; or, do not generally represent a visual setting that is common and/or valued within the surrounding area.

3.1.5 Baseline Visual Environment

The main parcel comprising the Project and the lands affected by the associated improvements are located within the Borrego Valley. The valley is defined by a series of mountains at varying distances from Project, allowing for a range of views to the valley floor below. The Project site is further defined by the Borrego Valley Airport and surrounding undeveloped lands.

3.2 Project Viewshed

The viewshed is generally the area that is visible from an observer's viewpoint and includes the screening effects of intervening vegetation and/or physical structures. Viewsheds may occur from designated scenic viewpoints or from singular vantage points where an unobstructed view of visual components within the landscape exists. The viewshed is composed of such elements as topography and natural land features (i.e., hillsides, mountains) and other physical features within the landscape, such as buildings, vegetation, water features. Potential visual impacts within the viewshed may be affected by distance of the viewer from a site, the frequency and length of views,

the personal perception of the viewer, and physical and/or atmospheric conditions at the time viewing occurs.

The Project site is located along the Borrego Valley floor which is visible from numerous vantage points that occur from the surrounding mountains. As such, the viewshed is generally defined by the surrounding mountainous topography which encircles the valley floor. Although this area is expansive, consideration of this viewshed provides the most comprehensive (largest) and conservative (worst-case) estimate of the area that could potentially be affected by the proposed Project. Refer to Figure 9, Viewshed/Landscape Unit Location Map, which shows the viewshed in the area surrounding the Project.

Within the viewshed, varied views of the Borrego Valley largely occur from vehicles as they descend (or ascend and look back to the valley) along the winding roads that lead to and from Borrego Springs; passengers in vehicles traveling within the Anza Borrego State Park, and visitors utilizing the trails or other recreational facilities within the Park; and, passengers in vehicles traveling along area roadways. The viewshed includes the developed areas of Borrego Springs and the surrounding, low-density development and undeveloped lands along the valley floor, generally bounded by the Santa Rosa Mountains. Due to the generally flat topography of the valley floor and the limited, low-lying vegetation typical of a desert environment, few elements within the landscape restrict views across the expansive valley from surrounding vantage points within the viewshed; however, distance from the object being viewed and intervening geological features have the potential to reduce or restrict views.

Figure 9, Viewshed/Landscape Unit Location Map, shows the general limits of the viewshed and the landscape units considered within the viewshed as part of this analysis. To characterize the visual pattern elements that occur within the Project viewshed, a number of key view locations across the valley were identified and representative photographs taken. The locations of these representative photos are identified in Figures 10A and 10B, Key Viewpoint Location Map(s), and are shown in Figures 11 through 17. Key viewpoints are described in detail in Section 5.2, Key Views. Key vantage points within the viewshed offering views across the valley occur from County Route 22 (S22) to the southwest of the Project site [Figure 15, View 5 (Visual Simulation) – County Route 22 (Montezuma Valley Road)]; Font's Point to the southeast of the Project site [Figure 16, View 6 (Visual Simulation) – Anza-Borrego Desert State Park/Font's Point]; and, Highway 78 to the south of the Project

site (Figure 17, Views 7, 8, and 9 – Other Offsite Public Views) as described further below.

3.2.1 County Route 22 (Montezuma Valley Road)

Views of the Borrego Valley occur looking northeast from northbound County Route 22 (S22); refer to Figure 15, View 5 (Visual Simulation) – County Route 22 (Montezuma Valley Road), which shows the existing view. Viewers from this location would mainly be passengers in vehicles traveling in either direction along County Route 22.

Views are generally defined by the Santa Rosa Mountains to the north and west. Varied views of the Borrego Valley occur from this roadway as vehicles descend (or ascend and look back to the valley) along the winding road. Views of the Borrego Valley below are intermittent and would generally be uninterrupted unless existing landforms interfere, although distance from Borrego Valley minimizes the visual details of the landscape. Existing views occur across the Borrego Valley and consist of developed areas within Borrego Springs, surrounding undeveloped lands, and the varying mountains in the background.

It should be noted that, similar to S22, County Route 3 (S3) is an area roadway that provides views across the valley as it traverses the mountains of the Anza Borrego Desert State Park from its intersection with SR 78 south of Borrego Springs, then trends across the valley floor in a generally north-south direction to where it terminates at its intersection with S22 at Christmas Circle.

A detailed analysis of public views from S22 as one travels down the mountains into the valley is provided within this Visual Analysis; refer also to Figure 15, View 5 (Visual Simulation) – County Route 22 (Montezuma Valley Road) and Figure 19 (S-22 Montezuma Grade Photo Simulation). In addition, similar views from Highway 78 looking down across the valley were also analyzed herein; refer also to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views. These views are considered to be representative of similar views (and impacts) that would occur from S3 looking across the valley.

As S3 is not designated as a scenic route in the County of San Diego General Plan Scenic Highway Element and is not shown as a designated trail on the County's adopted Community Trails and Pathways Plan for the Borrego Springs area, a detailed analysis of views from this road was not conducted as part of the Visual

Analysis. Although views to the Project site would occur at various vantage points along this roadway, the proposed Project would not substantially damage scenic resources within a State scenic route.

From S3, views of the Project site would occur at a distance; however, similar to views from S22 and Highway 78, distance from the site, combined with the height and scale of the proposed Project elements, would reduce the visibility of the Project within the landscape. In addition, from locations on S3 along the valley floor, intervening vegetation and existing development would also reduce views of the Project site, thereby minimizing its visibility.

For the above reasons, the Project would not substantially damage scenic resources within a State scenic route or substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area. Impacts with regard to S3 would be similar to those experienced along S22 or SR 78 in that they would be less than significant, and no mitigation measures are required.

3.2.2 Anza Borrego Desert State Park / Font's Point

Views from Font's Point across the valley occur within the Anza-Borrego State Desert Park; refer to Figure 16, View 6 (Visual Simulation) – Anza-Borrego Desert State Park/Font's Point, which shows the existing view. Viewers from this location would mainly be passengers in vehicles traveling within the State Park, or visitors utilizing the trails or other recreational facilities within the Park.

Views are generally defined by the Santa Rosa Mountains to the north and west. Varied topography and geological features are visible in the foreground with expansive views of the valley floor in the middle ground. Developed areas of Borrego Springs, surrounding undeveloped lands, and a variety of geological and topographical features also occur in the background.

3.2.3 Highway 78

Highway 78 is generally located approximately 8-9 miles to the south of the community of Borrego Springs; refer to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views, which shows the existing views. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Highway 78.

Views are generally defined by the Santa Rosa Mountains to the north and west, and consist of the expansive valley floor. Limited geological and topographical features are visible within the middleground, as well as in the background. In addition, limited low-lying scrub vegetation provides minimal screening effects.

3.3 Landscape Units

A landscape unit is an area that can generally be defined by visual and physical characteristics and may be composed of a limited area (i.e., meadow) or a larger area (i.e., portion of a mountain range). The overall boundaries of a landscape unit may generally be defined by topography, natural vegetation, architectural design, landforms, or similar types of land uses. Each landscape unit can be described individually and as varying from other adjacent landscape units. Each landscape unit is a portion of the regional landscape that often corresponds to a place or district that is commonly known among local viewers. As the Project would affect a number of properties within the valley with installation of the CPV solar panels and associated transmission facilities, several landscape units that may potentially be affected by construction of the proposed facilities were identified. Landscape Units are shown in Figure 9, Viewshed/Landscape Unit Location Map, and described below.

3.3.1 Landscape Unit #1

Landscape Unit #1 generally consists of the floor of the Borrego Valley. Outside of the Borrego Springs community, the valley floor is generally characterized by undeveloped lands and lands with very low-density development (typically one- to two-story single-family residential uses) on large-acre parcels. This Landscape Unit supports established vegetation typical of the desert environment, including low-lying desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover and annual grasses. This Landscape Unit is generally bounded to the north, east, and west by the Santa Rosa Mountains that rise from the valley floor. As much of the vegetation and topography are similar throughout this area, landscape components do not generally offer strong, visually distinctive patterns to viewers, particularly when viewed at a distance; refer also to Figures 11 to 13.

3.3.2 Landscape Unit #2

Landscape Unit #2 consists of Font's Point which is a visible and well-known geological element that rises approximately 1,200 feet above mean sea level (amsl) from the valley floor. Font's Point is located within the Anza-Borrego State Park and, from the upper reaches, offers a 360-degree panorama of the northern half of Anza-Borrego Desert. From Font's Point, along the southern horizon are views of the Fish Creek, Vallecito, and Pinyon Mountains; in the middle distance, are the twin buttes of Borrego Mountain; and, in the foreground are the San Felipe Wash, Sleepy Hollow, and Borrego Sink.

This Landscape Unit supports visual components that combine in distinctive visual patterns and provide topographical and visual contrast with regard to adjacent lands and the valley floor. Vegetation is generally low-lying, limited, and typical of the arid desert environment; refer also to Figure 16.

3.3.3 Landscape Unit #3

Landscape Unit #3 consists of the Santa Rosa Mountains, which generally bound the valley floor to the west, north, and east. The Santa Rosa Mountains are a short peninsular range east of Los Angeles and northeast of San Diego in southern California. The mountains extend for approximately 30 miles through Riverside, San Diego, and Imperial Counties along the western side of the Coachella Valley. The southern end of the range west of the Salton Sea is within the northwest corner of the expansive Anza-Borrego Desert State Park.

This Landscape Unit supports varied topographical components that combine in unique patterns to offer visual diversity and contrast with adjacent lands and the valley floor. Vegetation is generally low-lying scrub vegetation, with few significant stands of natural vegetation; refer also to Figures 14 to 16 which show the mountains in the background.

3.3.4 Landscape Unit #4

Landscape Unit #4 is represented by the large-acre lands actively utilized for agriculture, generally located to the north of the community of Borrego Springs. This Landscape Unit is generally bounded by the Santa Rosa Mountains to the west, north, and east, and by the more developed areas of Borrego Springs to the south. Topography within this Landscape Unit is relatively flat, due to its use for agricultural

production. Lands within this Unit visually contrast with the surrounding arid desert environment with regard to the type and color of vegetation they support; refer to Figure 9.

3.3.5 Landscape Unit #5

Landscape Unit #5 consists of the Borrego Valley Airport. The Airport is located just north of Palm Canyon Drive and represents a commonly-known and recognizable visible element within the Borrego Springs community and the valley landscape. This Landscape Unit is generally defined by Palm Canyon Drive to the south, the landing strip, and the supporting operational facilities. The limits of the property are fenced, creating a visible boundary.

Structural elements associated with the Airport are generally low-lying, one- to two-story buildings with simple architectural features and colors. As the majority of the site is paved (parking lot, runway, etc.), limited natural vegetation or manicured landscaping is visible; refer to Figure 14.

Views from this location would mainly be experienced by visitors to and employees of the Borrego Valley Airport, those traveling along adjacent roadways, and from vantage points overlooking the valley. This Landscape Unit offers minimal topographical differences as compared to adjacent lands. Existing views from this Landscape Unit are of the airport facilities and include the hangars, runway, parking areas, and Airport operations building/restaurant. The majority of the range of views consists of paved areas with little or no landscaping. Views of the mountains occur in the background.

3.3.6 Other Landscape Units

Other visible and locally recognized landscape units occur within the more developed areas of Borrego Springs and along the valley floor. Such landscape units are represented by Christmas Circle [see Figure 9 - LU #6 (Inset)], the Rams Hill development, and the Club Circle Golf Course/Borrego Springs Country Club, among others; however, due to area topography (which is generally flat), intervening development and vegetation within the landscape, or distance, the Project site would not be visible from these locations. Although such landscape units are recognized as contributing to the overall character of the community, they were not analyzed further herein for their potential to be affected by the proposed CPV solar Project.

4.0 Existing Visual Resources and Viewer Response

4.1 Existing Visual Resources

The lands affected by the Project are generally lacking in significant visual resources. The 288-acre parcel does not contain any County-defined steep slopes (defined as having a slope with a natural gradient of 25 percent or greater and a minimum rise of 50 feet) or other significant topographical features. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout the 288-acre parcel. Refer to Figure 2, Aerial Photograph, and Figures 4 and 5 which show the existing conditions.

No prominent natural drainage features are visible on the 288-acre parcel. No rock outcroppings are present on any of the lands affected by the Project.

In addition, the main parcel affected by the Project offers minimal vegetative habitat of aesthetic value. Vegetation largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover consisting of a mixture of Mediterranean grass and mustard. Some native wildflower species occur intermittently, with a number of dead mesquite trees also present in various locations on the parcel.

4.1.1 Visual Character/Visual Quality

The dominant visual character of the Project site is that of generally level topography with typical desert saltbush scrub vegetation. Areas of varied topography and desert dunes occur within the interior; however, from offsite public vantage points, this characteristic is not readily noticeable. The Project site is generally disturbed and/or undeveloped, with no existing structural elements. Lands through which Project-related easements would traverse support similar vegetation, and are largely undeveloped, with intermittent small-scale and uses occurring on several of the affected parcels.

Landscape Unit #1

Landscape Unit #1 consists of the floor of the Borrego Valley which generally supports undeveloped lands and lands with low-density development on large-acre parcels. This Landscape Unit is largely defined by undeveloped lands supporting established vegetation typical of the desert environment, including desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover and annual grasses.

As the majority of lands within the valley are generally undeveloped, few built components within this Landscape Unit contribute to a sense of bulk or mass. Visual color is generally unvaried and consists of earthtoned, natural components (sand, native grasses, etc.). As such, lands within this Landscape Unit generally do not create a strong visual pattern.

This Landscape Unit does not offer strongly contrasting landscape components that combine to form striking or distinctive visual patterns, and therefore, a memorable visual impression is generally not created. The landscape is largely free from encroachment of competing visual elements, due to the nature of the topography and existing vegetation, and is therefore visually intact. A sense of visual unity is achieved, as components combine to form a generally visually coherent pattern.

Landscape Unit #2

Landscape Unit #2 consists of Font's Point, located within the Anza-Borrego State Park. This geologic feature is readily visible within the landscape and supports varied visual components that combine in distinctive visual patterns. This geologic feature represents an element of greater bulk, scale, and mass, as compared to its immediate surroundings within the valley. Visible colors of Font's Point vary depending on the particular features being viewed and the time of day, but generally range from earthtoned to dusty pinks and reddish browns.

This Landscape Unit offers landscape components that create a distinctive visual impression and sense of vividness. When viewed in conjunction with the Santa Rosa Mountains, a sense of visual unity is achieved with the surrounding landscape components, creating a unified, coherent visual pattern.

Landscape Unit #3

Landscape Unit #3 consists of the Santa Rosa Mountains, which generally bound the valley to the west, north, and east. The topography of this Landscape Unit offers visual forms with varied visual bulk, mass, and shape. Colors are also varied, based upon viewing distance to the forms, sunlight and time of day, and texture of the surfaces. The mountains create a sense of visual dominance within the valley and offer a visually diverse pattern of elements within the landscape. This Landscape Unit supports landscape components that combine in distinctive visual patterns and provide visual contrast to other surrounding lands and the valley floor.

This Landscape Unit offers a sense of vividness and creates a memorable visual impression through varied geologic forms, particularly when influenced by sunlight. The Santa Rosa Mountains offer a unified and generally coherent visual pattern with few encroaching elements as they rise from the valley floor.

Landscape Unit #4

Landscape Unit #4 is represented by the concentrated, large-acre lands actively utilized for agriculture generally to the north of the community of Borrego Springs; refer to Figure 9. Topography within this Landscape Unit is visually flat, due to its use for agricultural production, creating a pattern with limited variation. Limited elements with visual bulk, dominance, or scale occur within this landscape. Lands within this Unit are generally similar with regard to color, due to the vegetation they support.

The components within this Landscape Unit do not offer a high degree of visual contrast, due to the nature of the agricultural lands, and therefore, do not combine to create distinctive visual patterns. The landscape has a moderate degree of intactness, as it is generally free from competing visual elements. In addition, a sense of visual unity is evident, as the landscape components join together to generally form a coherent visual pattern.

Landscape Unit #5

Landscape Unit #5 consists of the Borrego Valley Airport. As the structures are generally low-lying (one to two stories), they do not represent elements of significant mass, bulk, or scale within the landscape. Colors are generally of neutral hues (grays, blues, etc.), with limited visual diversity or texture, or notable architectural features.

The features of the Airport do not create a memorable visual pattern or impression, and instead represent fairly utilitarian components. Due to the location of the Airport and the largely undeveloped lands within proximity, the Airport does not create a sense of unity with surrounding landscape components or contribute to a harmonious visual pattern.

4.2 Viewer Response

Viewer response is based on both viewer sensitivity and viewer exposure. These elements influence how a viewer may potentially respond to a change in the visual landscape, particularly with regard to development of a site from a generally undeveloped condition. Viewer response varies based upon the type of viewer and the characteristics of the visual environment that would ultimately be affected (i.e., urban versus rural environment, established large-scale commercial area versus low density residential uses, etc.). Viewer response is largely influenced by viewer sensitivity and viewer exposure, as described in greater detail below. Figure 6, Surrounding Land Uses, identifies surrounding land uses and their approximate distance to the Project.

4.2.1 Viewer Sensitivity

Viewer sensitivity to a change in the visual environment can be influenced by a number of factors, including the awareness of the viewer, personal interest in a particular visual resource, and/or viewer activity during the time that views of a resource occur (i.e., vehicle driver versus passenger, active versus passive viewing). In addition, the particular goals or values of a community can influence the sensitivity of viewers to a particular site, land area, or viewshed. Viewer sensitivity may vary between those with a vested interest in a community (i.e., residents) versus those traveling through an area with little or no knowledge of the community or existing visual landscape. Based on these conditions, viewer sensitivity can be assigned a value of low, medium, or high.

It is likely that community members would be more sensitive to the Project than would those who experienced Borrego Springs as a tourist. In addition, viewer sensitivity may be higher among those who would experience views of the site more frequently, such as area residents or employees of the Borrego Valley Airport who would travel along Palm Canyon Drive or Borrego Valley Road on a daily basis. As views of the Project components would also vary due to distance from the site, as well

as travel speed and the degree to which one chooses to make an effort to view the site (e.g. turning of one's head), viewer sensitivity would further be influenced.

4.2.2 Viewer Groups

Viewer groups would mainly consist of those individuals traveling east/west along Palm Canyon Drive and north/south along Borrego Valley Road. Additional viewer groups from public vantage points would include employees and visitors of the Borrego Valley Airport, as well as travelers along other public roadways, particularly S22 and Highway 78. Visitors to the Anza-Borrego Desert State Park would also experience views to the site from varied vantage points within the Park.

Additional viewer groups may include residents and/or occupants viewing the Project site from several surrounding residential uses to the east/northeast, southwest; agricultural uses to the west/northwest; and/or, limited commercial/industrial-type uses along Palm Canyon Drive; however, such views of the Project from these vantage points would generally occur from privately-owned properties and not public viewpoints. Views from these private ownerships would generally occur at a distance from the Project and would be decreased due to distance, topographical differences, and intervening vegetation and development.

4.2.3 Viewer Exposure

Views into the Project site from vehicles traveling along Palm Canyon Drive and Borrego Valley Road would vary, but would be limited and brief, due to travel speeds and the angle of the view with respect to the viewer (i.e., forward-looking versus turning one's head and looking back towards the subject property). Views of the site from other public roads at greater distances (i.e., Highway 78, S22, etc.) would also occur. Viewer exposure from these roadways would vary, due to distance from the site, intervening topography and vegetation, and length of time the Project is actually visible from a particular location along the road.

In determining the exposure of each viewer group, several factors are considered. These include the number of viewers experiencing visual changes to the resource as the result of the proposed development, how long views would last, the anticipated speed at which viewers would be traveling, and the relation and distance of the viewer to the particular site.

Table 2, Viewer Groups and Anticipated Exposure, summarizes the anticipated viewer groups and the potential viewing experience of each.

**TABLE 2
VIEWER GROUPS AND ANTICIPATED EXPOSURE**

Anticipated Viewer Group	Number of Anticipated Viewers	Key Views	Distance to the Project Site	Anticipated Views with Project Implementation	Sensitivity	Duration of View
Drivers along Palm Canyon Drive	Estimated more than 1,000 people per day	#1 and #2	Close to Moderate Distance / Approximately 1.0 and 1.5 miles, respectively	Intermittent views of solar panels and associated infrastructure / transmission lines	Medium	Estimated 30-60 seconds
Drivers along Borrego Valley Road	Estimated 100 to 200 people per day	#3	Close to Moderate distance / Approximately 1.1 miles	Intermittent views of solar panels and associated infrastructure / transmission lines	Medium	Several seconds
Occupants of Borrego Valley Airport	Estimated 100-200 people per day	#4	Close Distance / Approximately 0.4 miles	Direct views of Project site and adjacent land uses	Medium	Average of 10 hours per day
County Route 22 (S22)	Estimated more than 1,000 people per day	#5	Far Distance / Approximately 4.7 miles	Varied land uses (Borrego Springs and surrounding land areas)	Low	Varied
Anza-Borrego Desert State Park / Font's Point	Estimated 100 to 500 people per day (depending on season)	#6	Far Distance / Approximately 6.2 miles	Varied land uses (Borrego Springs and surrounding land areas)	Low	Varied

4.2.4 Viewer Awareness

Viewer response is affected by the degree to which a viewer is receptive to visual details, character and quality of the surrounding landscape. A viewer's perception is affected by his/her activity and the degree to which he/she actively participates in noticing a change in the visual environment.

Viewer awareness to potential visual changes in the setting that may occur with the Project would be varied. A viewer would first need to be in a location within the

surrounding area where the Project site was visible (e.g. from a higher elevation), then actively notice that a change in the visual landscape has occurred. Viewer awareness would also vary between local residents and those who are experiencing the area as a tourist, wherein the local residents would likely be more aware of a change in the visual environment. In addition, viewer awareness would also vary due to distance from the proposed facilities, as views occurring at a greater distance would diminish the visibility of the Project components within the landscape.

5.0 Visual Impact Assessment

5.1 Guidelines for Determining Significance

The California Environmental Quality Act (CEQA) Guidelines define “environment” to include “objects of...aesthetic significance (Section 15360).” As such, the County of San Diego has identified thresholds of significance to assess potential impacts resulting from proposed development.

The following significance guidelines are intended to provide guidance in the evaluation of whether a significant impact to visual resources would occur as a result of project implementation. A project is generally considered to have a significant effect if it proposes any of the following:

- ⊗ Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines;
- ⊗ Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings;
- ⊗ Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area; or,
- ⊗ The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District’s zoning.

5.2 Key Views

Several key views of the Project site from surrounding public vantage points were identified for the Project; refer to Figures 10A and 10B, Key Viewpoint Location Map(s), and Figures 11 through 17, which illustrate existing and proposed views of lands affected by the Project. As described below, views of the Project from these vantage points would be limited by distance from the site, travel speeds, angle of the

view (i.e., looking directly to the site or turning one's head to look back to the site), topography, and intervening natural vegetation and/or land uses.

5.2.1 Key View #1 – Palm Canyon Drive

Key View #1 is the view of the Project site looking northeast along Palm Canyon Drive to the Project site; refer to Figure 11, View 1 (Visual Simulation) – Palm Canyon Drive, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Palm Canyon Drive.

From this vantage point, views of the Project site are brief and intermittent, due to established natural vegetation along the roadway, intervening land uses, travel speeds, and distance to the Project site. Views largely consist of low-lying natural vegetation and relatively level topography in the foreground, with mountains of varying elevation in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. Although views to the site would change as one travels along the roadway, views of the CPV solar panels from Key View #1 would be limited, and viewer response to the visual change in the landscape is anticipated to be low. Additionally, the proposed Gen-tie line would either be installed underground (Borrego Valley Road Gen-tie Route) or underground or above ground (12kV SDG&E Line Extension) from the northwestern corner of the 288-acre parcel. Such improvements would either not be visible (undergrounded) or would be similar to existing conditions (existing above ground SDG&E utility poles) with Project implementation, and therefore, would not contribute to a change in the existing visual landscape. As such, views of Project features that would substantially detract from or contrast with the existing visual character and/or quality of the area would not occur, and impacts would be less than significant.

5.2.2 Key View #2 – Palm Canyon Drive

Key View #2 is the view of the Project site looking northwest along Palm Canyon Drive to the Project site; refer to Figure 12, View 2 (Visual Simulation) – Palm Canyon Drive, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Palm Canyon Drive.

From this vantage point, views of the Project site are brief and intermittent, due to established natural vegetation along the roadway, intervening land uses, travel speeds, and distance to the Project site. Similar to Key View #1, views largely consist of low-lying natural vegetation and relatively level topography in the foreground, with mountains of varying elevation in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. A limited portion of the CPV solar panels on the 288-acre parcel would be visible from this location. Additionally, the proposed Gen-tie line would either be installed underground (Borrego Valley Road Gen-tie Route) or underground or above ground (12kV SDG&E Line Extension) from the northwestern corner of the 288-acre parcel. Such improvements would either not be visible (undergrounded) or would be similar to existing conditions (existing above ground SDG&E utility poles) with Project implementation, and therefore, would not contribute to a change in the existing visual landscape. As such, the proposed improvements would not contribute to a significant change in the existing visual landscape. Although views to the site would change as one travels along the roadway, views of the CPV solar panels from Key View #2 would be very limited, and viewer response to the visual change in the landscape is anticipated to be minimal. As such, views of Project features that would detract from or contrast with the existing visual character and/or quality of the area would not occur, and impacts would be less than significant.

5.2.3 Key View #3 – Borrego Valley Road / Borrego Substation

Key View #3 is the view of the Project site looking southeast to the site from the existing Borrego Substation refer to Figure 13, View 3 (Visual Simulation) – Borrego Valley Road/Borrego Substation, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Borrego Valley Road.

From this vantage point, views of the Project site are limited due to distance from the site, intervening topography and established land uses, and natural vegetation. Views generally consist of low-lying natural vegetation and relatively level topography in the foreground, with limited trees of varying height along the west side of Borrego Valley Road. The existing utility poles along Borrego Valley Road are visible, and views to mountains of varying elevation occur in the background. The existing visual landscape

does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. No views of the CPV solar panels on the 288-acre parcel would occur from this location. As stated above, the Gen-tie line would be installed either above ground or underground with the Project; however, such improvements would not contribute to a significant change in the existing visual conditions. As such, views of Project features that would contrast with the existing visual character and/or quality of the area are not anticipated, and impacts would be less than significant.

5.2.4 Key View #4 – Borrego Valley Airport

Key View #4 is the view of the Project site looking northwest/northeast to the site from the Borrego Valley Airport refer to Figure 14, View 4 (Visual Simulation) – Borrego Valley Airport, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be visitors and employees of the Borrego Valley Airport.

Views of the Project site from this vantage point are uninterrupted, due to the adjacency of the Borrego Valley Airport to the Project site, minimal intervening natural or ornamental vegetation, and limited topographical differences. Existing views from this viewpoint are of the Airport facilities and include the hangars, runway, parking areas, and Airport operations building/restaurant. The majority of the range of view consists of paved areas with little or no landscaping. Views of the mountains occur in the background. Due to the function of the Airport, views from this vantage point are generally considered to be of low visual quality and character, with little or no memorable landscape components, and no visual harmony or coherence with surrounding lands. As views of the CPV solar panels would be very limited, considered in combination with existing views of the Airport facilities, viewer response to the visual change resulting with the Project is anticipated to be low. As stated above, the Gen-tie line would be installed either above ground or underground with the Project; however, such improvements would not contribute to a significant change in the existing visual conditions. As such, installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

Other similar solar panel projects throughout the U.S. and globally have been installed near airports with no impacts on flight operations with regard to glare. Such locations include the Munich Airport in Germany; the Love Field Airport in Prescott,

Arizona; and, the San Francisco, California Airport. Additional PV solar studies considered in this visual analysis for the proposed Project included the Panoche Valley Solar Farm Project Glint and Glare Study (Panoche Report)¹ and a Technical Memorandum provided by SunPower Corporation, (SunPower Report)², both of which concluded findings of no significant adverse effects with regard to glare generated by PV solar panels. Refer also to the Land Use Compatibility Analysis prepared for the proposed Project (February 2013) for more in-depth discussion with regard to potential glare effects (available under separate cover).

The potential effects of solar panel glare were recently analyzed by the Federal Aviation Administration (FAA) for the installation of a 4-megawatt PV solar power generation array adjacent to Denver International Airport (DIA) in Colorado in 2006. A number of tests were performed to analyze glare effects, such as placing sample PV solar panels at different installation locations and at variable angles. No glare was noted by observers in any of the panel orientations. An aerial observation was also conducted. Reflectivity of the panels was measured four times per day, concluding that 96 percent of the sun's light was absorbed by the panels, and that the light reflected was dispersed. Since the panels were installed in August 2008, no complaints have been filed with DIA with regard to glare effects from the panels. A similar PV solar panel project was installed on the Express Hub at the Fresno Airport in Fresno, California. The project involved installation of flat plate PV modules and PV modules that capture and concentrate sunlight onto a solar cell which allow only reflected light from heat. No adverse effects from glare on airport operations have been reported.

The FAA recently consulted project managers from six airports where solar facilities have been operational for one to three years in order to evaluate any glare complaints. Additionally, air traffic controllers were contacted from three of these airports to identify any effects that glare had on their daily operations. The consultation determined that no serious complaints from pilots or air traffic controllers have been made regarding glare impacts from existing solar PV installations at these airports. Any potential problems have apparently been resolved prior to construction by assessing existing sources of glare, testing in the field, and through geometric analysis to minimize the potential for glare/reflection to occur. This evidence suggests that either significant glare is not occurring during times of operation or, if glare is

¹ Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

² SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance, dated September 29, 2009.

occurring, that it is not a negative effect and is instead a minor part of the landscape that is observed or experienced by both pilots and tower personnel.³

Effects of solar panel glare were also analyzed by the FAA for the installation of a 4-megawatt PV solar power generation array adjacent to Denver International Airport (DIA) in Colorado in 2006. A number of tests were performed to analyze glare effects, such as placing sample PV panels at different installation locations and at variable angles. No glare was noted by observers in any of the panel orientations. An aerial observation was also conducted. Reflectivity of the panels was measured four times per day, concluding that 96 percent of the sun's light was absorbed by the panels, and that the light reflected was dispersed. Since the panels were installed in August 2008, no complaints have been filed with DIA with regard to glare effects from the panels. A similar solar PV panel project was installed on the Express Hub at the Fresno Airport in Fresno, California. The project involved installation of flat plate PV modules and PV modules that capture and concentrate sunlight onto a solar cell which allow only reflected light from heat. No adverse effects from glare on airport operations have been reported.

The CPV Soitec Concentrix™ technology proposed for use with the Project consists of one or more tracking units, wherein many single CPV modules are installed and all modules are oriented in the same direction, aligned in one common plane. The front and back surface of the module consists of flat glass plates. The glass plate on the front side of the module is structured on the inner surface so that only the first, outer surface of the front glass plate can cause a specular reflection that may cause glare; however, the intensity of such a light is lower than a reflex from a glass façade or large window.

Specific to the proposed technology for the Project, the tracking of Soitec Concentrix™ Technology CPV installations allows light reflected from the modules mounted on the trackers to be retro-reflected into the direction of the sun in the regular mode of operation. All modules are tracked precisely to be oriented perpendicular to the incident solar direct beam radiation. Therefore, the plane front surface of the modules reflects a small portion of the incident light exactly back into the direction of the sun. With exception of times when it is close to sunrise and sunset, the occurrence of glare at or close to the ground is therefore impossible under regular operation. When the sun is close to the horizon, the intensity of sunlight is greatly

³ Ibid.

reduced, as compared to other times during the day, by the atmosphere. Therefore, the risk of glare is reduced at these times.

At high wind speeds, (e.g. during weather storms), the trackers would move automatically to a horizontal stall position. This position is uncritical with respect to glare, as any reflection of light would be directed towards the sky. In addition, high wind speeds seldom occur at times with high solar irradiance.

A *Glint and Glare Study* was prepared for the previously-approved Borrego Springs PV Solar Project (MUPs 09-012 and 09-014) by Power Engineers in January 2011.⁴ The study was prepared to address potential glint/glare effects on the Borrego Valley Airport and/or similar effects on the local community. The study evaluated potential glint/glare effects from six observation points, including three from Palm Canyon Drive, and from Christmas Circle, State Route 22, and Anza Borrego Desert State Park. It was determined that vantage points north of the site would not experience glint or glare effects, as the panels proposed with the project would be fixed and south-facing. Through 3D computer modeling used to create an accurate visual representation of the project and surrounding areas, all six vantage points analyzed were determined to experience either low visibility and low duration of glint and glare, or no glint and glare effects from the proposed solar energy facilities. Those locations expected to experience low visibility and low duration of glint and glare included from Palm Canyon Drive and the Anza Borrego Desert State Park; however, potential glint and glare impacts resulting with the previously-approved Borrego Springs PV Solar Project were determined to be low due to distance and short view duration; refer to the Borrego Springs PV Solar Project - *Glint and Glare Study* (EE Borrego Land, LLC), available under separate cover. The proposed Project would be similar in nature to the above-described solar projects in overall design characteristics. It is therefore anticipated that potential glare effects resulting from the proposed Project would be similar and less than significant.

In addition, the applicant for the previously-approved MUPs (P09-012 and P09-014) on the subject 288-acre parcel and the 104-acre parcel directly adjacent to the south (and directly bordering the Borrego Valley Airport property) submitted FAA Form 7460-1, Notice of Proposed Construction or Alteration. In response, the applicant

⁴ According to the *Technical Guidance for Evaluating Selected Solar Technologies on Airports*, prepared by the FAA, "Glint is a momentary flash of bright light, whereas glare is a continuous source of bright light." Published November 2010.

received from the FAA a determination of “No Hazard to Air navigation” for installation of the proposed facilities. Based on the above discussion and findings for glare effects of similar solar PV panel installations, potential Project-related glare effects for users of the Borrego Valley Airport, as well as surrounding vantage points, are anticipated to be none to minimal, and no significant impacts are expected to occur. The Project applicant submitted a revised Form 7460-1, specific to the revised Project as currently proposed, and has received a determination of “No Hazard to Air Navigation” from the FAA.

Based on the technical evidence evaluating the reflectivity of solar panels, the proposed Project would not install highly reflective materials that would result in a substantial increase in light or glare that would affect the surrounding area or that would produce reflective light that would create adverse disability or discomfort glare. The proposed Project is in accordance with the County’s Guidelines of Determining Significance for Lighting and Glare. The slight increase in glare resulting from the Project would be a less than significant impact.

In addition, to ensure that potential glare impacts are minimized with regard to operations at the Borrego Valley Airport, the County will enforce certain design and operational standards. These standards require that all light fixtures or light sources be installed so as to comply with the rules and regulations of the FAA or other appropriate agencies governing height, type, and placement of lights that may affect the safety of aircraft operations into, from, and around the Airport. Refer also to the Land Use Compatibility Analysis that was prepared for the proposed Project (February 2013) for additional discussion regarding glare effects (available under separate cover).

5.2.5 Key View #5 – County Route 22 (Montezuma Valley Road)

Key View #5 is the view of the Project site looking northeast to the site from northbound County Route 22 (S22); refer to Figure 15, View 5 (Visual Simulation) – County Route 22 (Montezuma Valley Road), which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along County Route 22.

Varied views of the Borrego Valley occur from this roadway as vehicles descend along the winding road. Views of the Borrego Valley (and the Project site) below are

intermittent. Although views of the site would generally be uninterrupted when existing landforms do not interfere, such views occur at a moderate distance from Borrego Valley, thereby minimizing details within the landscape. Existing views from this vantage point are across the Borrego Valley and consist of developed areas within Borrego Springs, surrounding undeveloped lands, and the varying mountain ranges in the background. Although views of scenic value occur at various locations along the roadway, due to distance and associated lack of visual detail or coherence of the landscape components, visual quality and character are reduced. As views of the CPV solar systems from this roadway would be limited, viewer response to the visual change resulting with the Project is anticipated to be low. The Gen-tie line would be installed either above ground or underground with the Project; however, such improvements would not contribute to a significant change in the existing visual conditions. Therefore, such improvements would not represent features within the landscape that would attract a viewer's attention. As such, installation of the CPV solar systems and associated facilities would not substantially detract from or contrast with the existing visual character and/or quality of the community, and impacts would be less than significant.

5.2.6 Key View #6 – Anza Borrego Desert State Park / Font's Point

Key View #6 is the view of the Project site from Font's Point within the Anza-Borrego State Desert Park located to the southeast of the Project; refer to Figure 16, View 6 (Visual Simulation) – Anza-Borrego Desert State Park/Font's Point, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling within the State Park, or visitors utilizing the trails or similar recreational facilities within the Park.

Views from this vantage point occur at a distance from the Project site and are generally composed of views across the valley floor, with the developed areas of Borrego Springs, surrounding undeveloped lands, and a variety of geological and topographical features within the foreground (State Park) and in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Unique features within the landscape are visible, and an established visual pattern and compositional harmony created by such elements within the foreground and distanced within the landscape. Although visible, views of the CPV solar systems on the 288-acre parcel would be limited from this vantage point, due to

the distance from the Project and the relative height and size of Project-related features. As such, viewer response to the visual change in the landscape is not considered to be high. The Gen-tie line would be installed either above ground or underground with the Project; however, such improvements would not contribute to a significant change in the existing visual conditions. Therefore, such improvements would not represent visibly noticeable features within the landscape that would attract a viewer's attention. Installation of the CPV solar systems and associated facilities would not substantially detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.2.7 Key Views #7 and #8 – Highway 78

Key Views #7 and #8 are the views to the Project site from Highway 78, generally located approximately 8-9 miles to the south; refer to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Highway 78.

Views from this vantage point occur at a distance from the Project and are generally composed of views across the valley floor. A variety of geological and topographical features would be visible within the foreground, as well as in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Views of the CPV solar systems on the 288-acre parcel would generally be obscured from sight from this vantage point, due to the distance from the Project and the relative height and size of Project-related features. The Gen-tie line would be installed either above ground or underground with the Project; however, such improvements would not contribute to a significant change in the existing visual conditions. Therefore, such improvements would not represent visibly noticeable features within the landscape that would attract a viewer's attention. As such, viewer response to the visual change in the landscape is considered to be low. Installation of the CPV solar systems and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.2.8 Key View #9 – Henderson Canyon Road

Key View #9 is the view to the Project site from Henderson Canyon Road, located approximately two miles to the north of the Project site; refer to Figure 17, Views 7, 8,

and 9 – Other Offsite Public Views. Viewers from this location would mainly be passengers in vehicles traveling east-west along the roadway.

Views from this location would occur at a distance from the Project and would generally across of the valley floor. Few topographical features would be visible within the foreground; the mountains would be visible in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Views of the CPV solar systems on the 288-acre parcel would generally be obscured from sight from this vantage point, due to the distance to the Project and the low-lying nature of the proposed facilities. As a result, viewer response to the visual change in the landscape with the Project is considered to be low. Installation of the CPV solar systems and associated facilities would not substantially detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.3 Assessment of Visual Character and Visual Quality

5.3.1 Assessment of Visual Character

288-Acre Parcel / Gen-Tie Route

Natural landforms, natural vegetation, and a mixture of agricultural, industrial, small-scale commercial, and single-family residential uses, as well as large parcels of undeveloped land exist in the area surrounding the Project; however, such visual components would generally not be adversely affected by the proposed development. Construction of the Project under the MUP for construction of access roads and CPV foundations; trenching for the electrical collection system and communication lines; and, construction of the Gen-tie line on would involve clearing and grubbing of the existing vegetation on approximately 50.63 acres of the 288-acre parcel; however, overall disturbance for the entire Project (temporary laydown yard, solar field, trail easement, and options for access, Gen-tie route, and utility easements) would be approximately 66.89 acres. Approximately 125 acres of the 288-acre parcel would be preserved as permanent open space for the purposes of biological open space mitigation, thereby allowing the existing vegetation and topography on the remaining 110 acres of the parcel to remain undeveloped in their natural state.

The Project would change the composition of the visual pattern in the existing setting. The physical character (i.e. presence of native vegetation, colors, visual diversity) would be altered with installation of the solar panels and associated facilities; however, with consideration of varied views to the site from surrounding properties and travelers along nearby public roadways, the visual changes resulting from the Project would not dominate or substantially change the existing visual pattern of the area, nor would the Project incorporate elements that would substantially obstruct or diminish existing views; refer also to Figures 11 to 17 which illustrate views of the Project from surrounding public vantage points.

As previously stated, similar industrial and commercial uses exist in the surrounding area and support structural elements of similar or greater size, height, and/or appearance (i.e. Borrego Valley Airport, communications tower, sand and gravel operation, etc.). As visibility of the site would be limited due to distance of the facilities from public roadways an adverse change to the overall visual pattern character through the introduction of elements that would create visual dominance or scale is not anticipated with the Project.

In addition, installation of new or replacement utility poles along Palm Canyon Drive or Borrego Valley Road is not proposed with the Project. The proposed Gen-tie line would either be undergrounded (Borrego Valley Road Gen-tie Route) or installed above ground or undergrounded (12kV SDG&E Line Extension Route) from the northwestern corner of the Project site westward to the Borrego Substation; however, if the Gen-tie line were to be installed above ground on utility poles, views would be similar to existing conditions, as utility poles are currently visible within the SDG&E easement running eastward from the Borrego Substation. Therefore, such Project components would not significantly change the existing visual character and would not represent a new visual feature that would appear substantially different from existing conditions.

The Project would also change the composition of the visual pattern of views from the Borrego Valley Airport. Installation of the solar panels and associated facilities would be visible to those occupying or flying into/out of the Airport; however, it is not anticipated that such changes would visually dominate or substantially change the existing visual pattern of the area; refer also to Figure 14 which illustrates views of the Project from the Airport. As the proposed Project elements would be low-lying within the landscape, they would not substantially obstruct or diminish existing views.

5.3.2 Assessment of Visual Quality

The visual quality of a view is partially influenced by the viewing location from which public views occur. The viewing location can allow for views that are generally either expansive in nature or focused on a specific view of a site or particular feature within the landscape. In addition, visual quality is influenced by the particular characteristics of the viewing corridor within which a view occurs. Visual quality is also affected by the quality of the overall viewshed area being viewed. Areas identified as having high visual quality are those which are identified as being sub-regionally important and possessing high scenic value.

288-Acre Parcel / Gen-Tie Route

The visual quality of Project lands would be potentially affected during the construction phase of the Project. Views of the site would include grading and construction activities, presence of construction vehicles and workers, and storage of building materials. Existing vegetation would provide some visual screening of the site; however, construction impacts on visual quality would be temporary and short-term, and would ultimately be reduced when construction is complete. Once construction is completed, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially altering views to the Project.

Views of the 288-acre parcel from Palm Canyon Drive and Borrego Valley Road are limited. The site presents a landscape that is generally visually intact, but due to the nature of the vegetation and the visual character of adjoining lands, are generally not considered to have a strong visual harmony with adjacent lands. Visual diversity on these properties is generally low, with limited elements or features that disrupt or dominate the visual landscape, and no visually significant natural or topographical features. As such, the affected lands are generally considered to have a low visual quality and are not considered to be subregionally important or possessing a high scenic value.

Neither of the proposed Gen-tie routes (Borrego Valley Road Gen-tie Route or 12kV SDG&E Line Extension Route) is considered to possess landscape components that create distinctive visual patterns or possess high visual quality. As such, the lands potentially affected by the Gen-tie route are generally considered to have a low visual

quality and are not considered to be subregionally important or possessing a high scenic value.

As the proposed development areas affected by the Project would be graded (minimal) and/or cleared and grubbed, vegetation following Project implementation would be minimal. As no landscape treatments are proposed with the Project, the visual quality of the site would not be enhanced following completion of the construction phase through the maturing of trees, plants, or other decorative landscaping features; however, as the existing visual quality of the affected parcels is not considered to be high, combined with the condition that surrounding lands support similar natural vegetation that would partially reduce views to the site, installation of the CPV solar systems and associated facilities would not significantly reduce the overall existing visual quality of the Project site.

It is not anticipated that the Project would significantly affect the existing visual quality of the lands affected by the Project or of surrounding lands. Potential visual impacts affecting view quality would be less than significant, and no mitigation measures are required.

5.4 Assessment of Viewer Response

Viewer response to visual changes on the Project site with development of the CPV solar facilities is anticipated to be varied, dependent upon the Project facilities being viewed and the location of the public vantage point. Viewer response during the construction phase may be greater because grading activities, construction equipment, and varying stages of roadway construction and panel installation may be visible from public roads within the Project vicinity. Once construction is completed, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially altering views to the Project.

288-Acre Parcel / Gen-Tie Route

The main CPV solar field would be located approximately 2,300 feet north of Palm Canyon Drive. As a result, views to this portion of the site would be greatly reduced and intermittent. Viewer response to views of this area of the Project would be low, due to distance and intervening vegetation.

Viewer response to Project-related Gen-tie line would be low, as the line would either be undergrounded (Borrego Valley Road Gen-tie Route) or installed above ground or undergrounded (12kV SDG&E Line Extension Route); however, if the Gen-tie line were to be installed above ground on utility poles, views would be similar to existing conditions, as utility poles are currently visible within the SDG&E easement running eastward from the Borrego Substation. Viewer reaction to this change in conditions is not anticipated to be of significance.

Viewer response from other public vantage points within the valley or from public roadways located at a distance (i.e. Highway 78 or S22) is anticipated to be low. Views to the Project site from locations within the community would generally be reduced or blocked due to intervening development and minimal differences in elevation (generally flat viewing plane). Viewer response from more distant locations would be low, as the Project would not represent a significant visual feature within the landscape due to distance and existing vegetation and development along the valley floor.

5.5 Determination of Significance

- 1) Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

Location / Lot Size

The Project area is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. In the Project vicinity, parcels are generally large-acre parcels with low-density uses. The majority of surrounding parcels are designated as Rural Lands (RL-40) and Semi-Rural Residential, which allow for low-density residential development. A number of smaller parcels are located to the south of the Project site, across Palm Canyon Drive, and are generally small-scale commercial uses and residential uses. Smaller lot sizes are evident within the more developed areas of Borrego Springs. The Project does not propose to subdivide or change the existing size of any of the parcels affected by the proposed improvements, and therefore, would not create lot sizes that were inconsistent with the existing visual character of lands in the surrounding area.

Commercial uses and industrial uses with characteristics similar to that proposed with the Project occur in the surrounding area. To the north and east of the main parcel is undeveloped land; to the south is the Borrego Valley Airport; and, to the west are a commercial palm nursery and a sand and gravel plant. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel; refer to Figure 2, Aerial Photograph. A commercial sand and gravel yard is located to the north; refer to Figure 6, Surrounding Land Uses. Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type and residential uses. As such, industrial and commercial uses with characteristics similar to that proposed with the Project occur in the surrounding area.

Architectural Design

Architectural design of structures within the land areas surrounding the Project is varied, due to a mixture of use types. Residential uses in the area typically exhibit ranch-style features with wooden exteriors and roofing, and generally non-decorative elements. Several visible residential uses are constructed in the Spanish style, with stucco exteriors, tile roofing, and arched features. Surrounding commercial and industrial uses generally exhibit more utilitarian features with minimal architectural design (i.e., concrete and gravel plant, sand and gravel yard, Borrego Substation, Borrego Valley Airport, self-storage facility).

The Project would involve installation of the CPV solar systems on the 288-acre parcel with supporting infrastructure that includes small-scale structures to house the inverters/transformers and switching gear, and associated transmission equipment (i.e., transmission lines). As the Project represents a utility use, Project components would be utilitarian in nature and would not represent structural features such as residential or commercial buildings that would require detailed architectural design or design features intended for visual enhancement. Architectural design of the proposed facilities is not anticipated to significantly contrast with the visual character of other uses found in the surrounding area. The bulk and mass of the proposed structural elements would reflect similar existing components within the visual landscape. The architectural design of Project elements would not result in features that are visually dominant within the visual landscape, or that represent a scale that would significantly contrast with the existing visual character.

Materials and Colors

Surrounding land uses exhibit a variety of materials and colors, depending on the land use considered. Materials generally range from wood, stucco, and concrete block for residential and commercial uses. Metal and/or stucco structures are typical of surrounding industrial and agricultural uses and the Borrego Valley Airport. Exterior colors of surrounding structures are typically earthtoned in nature.

Solar Panels

The CPV solar systems would be manufactured at an offsite location and transported to the Project site for installation. The modules would be made up of a lens plate (Fresnel lens) and a base plate on which the high-performance solar cells are mounted. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare.

Inverter/Transformer Enclosures

Up to five small-scale, aboveground structures would be constructed within the solar panel fields to weatherize inverter/transformers. The structures would be constructed of non-flammable materials (i.e., steel) with an earthtone finish. Roofing for these structures would also be metal and of an earthtone finish to reflect the visual character of the surrounding natural environment.

Switch Gear/Ultra Capacitor Storage Unit

Two small-scale, aboveground structures would be constructed at the northwestern portion of the tracker field. The structures would be constructed of non-flammable materials (i.e., steel) with an earthtone finish to reflect the visual character of the surrounding natural environment.

Storage Building

One storage building would be constructed to support maintenance activities. The building would be constructed of either concrete block or metal with an earthtone exterior, similar to the exterior of the inverter enclosures.

Overall, the Project would result in the construction of elements within the landscape that would be respective of the existing visual character and visual quality with regard to materials and color. No features are proposed that would sharply visually contrast with surrounding elements, or that would create a visually dominant feature.

Supervisory Control and Data Acquisition System Building

Operation of the Project would require monitoring through a supervisory control and data acquisition (SCADA) system. One 10-foot by 30-foot (300 s.f.) structure would be constructed on a pad to house the SCADA equipment. Similar to other proposed structures, the building would be constructed of either concrete block or metal with an earthtone exterior.

Height / Square Footage

Surrounding residential and commercial uses typically range between one to two stories in height. Industrial-type and/or agricultural uses on surrounding lands support structural elements that generally range from 10 to 30 feet in height, with various elements of greater height, depending on their function. In addition, the communications tower located to the west of the Project site is greater than 100 feet in height. It should also be noted that the Borrego Valley Airport supports several hangars for the storage and protection of airplanes. It is estimated that these facilities range between approximately 100 feet by 350 feet to 550 feet (35,000 s.f. to 55,000 s.f.) in size, with an approximate height of 30 feet. These hangars are located in the western portion of the Airport property and are visible from Palm Canyon Drive.

Square footage of buildings in the area varies, due to the type of use, with residential uses generally of smaller scale (generally one-story) and commercial and industrial uses supporting structures of greater square footage.

Solar Panels

Each CPV system module assembly dimensions would measure approximately 48 feet across by 25 feet high (1,200 s.f. of surface area); refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. Each CPV system unit would be mounted on a 28-inch diameter steel mast (steel pole). In its most vertical position, and depending on foundation design, the top of each tracker would not exceed 30 feet above grade, and the lower edge would not be less than one foot above the base flood elevation (bfe). In its horizontal “stow” mode, (for high winds), each tracker would have a minimum ground clearance of 13 feet 6 inches. Each steel pole would be mounted on either a 28-inch diameter metal-driven pile or a 30-inch diameter concrete drilled pier, thereby minimizing the amount of ground surface affected by installation of the CPV solar components.

Due to the limited height of the solar panels and the topography of the portion of the 288-acre parcel proposed for development (minimal Project grading required), visibility of the panels within the landscape would be reduced. As sensitive land uses (i.e., residential uses) are not located in the immediate area surrounding the affected parcels, and views to the site would instead generally occur at a distance from developed properties and/or roadways, views of the panels would be limited.

Inverter/Transformer Stations

Up to five inverter stations would be required with the Project. The inverter stations would be 12 feet in height. The inverter stations would be located with the lower edge of the foundation skid being no less than one foot above the base flood elevation (which is one foot above ground surface level). Each inverter/transformer platform would be 10 feet by 40 feet, or 400 square feet.

As such, these structures would be relatively small in nature, and would not represent a size or height that would significantly contrast to existing land uses in the surrounding area (i.e., residential, industrial, small-scale commercial uses, etc.).

Switch Gear/Ultra Capacitor Storage Unit

Two small-scale, aboveground structures would be constructed at the northwestern portion of the tracker field. The platform housing the Switch Gear would be 10 feet by 10 feet. The platform housing the Ultra Capacitor would be 10 feet by 40 feet. Platforms would be located with the lower edge of the foundation skid being no less than one foot above the base flood elevation (which is one foot above ground surface level).

As such, these structures would be relatively small in nature, and would not represent a size or height that would significantly contrast to existing land uses in the surrounding area (i.e., residential, industrial, small-scale commercial uses, etc.).

Storage Building

The proposed storage building would consist of a 300 s.f. metal building (within a 1,000 s.f. breakaway fenced and screened storage yard). The structure would be approximately 10 feet 8 inches in height, constructed on top of piers at one foot above base flood elevation.

SCADA Building

The structure proposed to house the SCADA equipment would be 300 s.f. in size. The structure would be approximately 10 feet in height, constructed on top of piers at one foot above base elevation.

Gen Tie/Transmission Facilities

In order to transfer the power generated from the solar facility to the Borrego Valley Substation, the Project would utilize either the Borrego Valley Road Gen-tie Route or the SDG&E 12kV Line Extension Route, as shown on the MUP Plot Plan; refer to Figures 3A and 3B.

The POI for the Borrego Valley Road Gen-tie Route would be at the Borrego Valley Substation. The 12kV line would be undergrounded within an existing 50-foot wide access and utility easement on private lands (APN 141-060-08). The Borrego Valley Road Gen-tie Route would start at the Borrego Substation and follow the Borrego Valley Road Access Route east to a point near the northwesterly corner of the Project site, cross the existing SDG&E easement, run through a portion of the neighboring Cocopah nursery, and then trend southward to the Project boundary via the 30-foot wide Gen-tie Route.

The 12kV SDG&E Line Extension Route would be located within the existing 20-foot wide SDG&E easement (Record #72-3377663) that extends from the Borrego Substation easterly to the POI near the northwesterly corner of the Project site. From the POI, the 12kV underground Gen-tie line would trend southerly across the adjacent Cocopah nursery, and then trend southward to the Project boundary via the 30-foot wide Gen-tie Route. All improvements to the 12kV line extension would be completed by SDG&E and are under the land use authority of the CPUC, pursuant to General Order 131D.

As such, the Project would not result in the introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area, or by being inconsistent with applicable design guidelines. Impacts would be less than significant, and no mitigation is required.

Bulk and Scale

An evaluation of bulk and scale includes an analysis of the visual appearance of structures, relative to other existing development in the surrounding area. Visual bulk

and scale of surrounding structures varies depending on the type of use. Residential and commercial uses tend to be of smaller scale (generally one to two stories in height) and visually horizontal in nature, while agricultural and industrial-type uses generally support structural elements of greater bulk and scale within the visual landscape. The Borrego Valley Airport property supports a number of large-scale airplane hangars, with associated maintenance facilities, and an administrative building with offices and a restaurant. These structural features have visible bulk and scale within the landscape, particularly as adjoining lands are undeveloped.

It is anticipated that the apparent visual bulk and scale of the proposed Project facilities would generally be consistent with that of surrounding uses, due to the design requirements of the solar facilities and associated infrastructure, structural/equipment heights, and required development regulations of the applicable zones.

As noted above, each CPV system module assembly dimensions would measure approximately 48 feet across by 25 feet high (1,200 s.f. of surface area); refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. In its most vertical position, and depending on foundation design, the top of each tracker would not exceed 30 feet above grade. The trackers would be spaced approximately 59 feet (center to center) along the vertical axis, and 82 feet (center to center) along the horizontal axis, thereby further reducing visible bulk and scale by providing open space between the structures.

As such, the solar panels would be low-lying and would not be of significant scale or bulk. Due to the limited height and size of the solar panels and the topography of the site (e.g. generally flat viewing plane), visibility of the panels within the landscape would be further reduced.

In addition, the structural elements (inverter stations, SCADA enclosure, storage building, SDG&E equipment pad) would be located within the boundaries of the site. None of the proposed Project components would exceed a height of 30 feet as measured from the ground surface. As the proposed facilities would be relatively low-lying within the landscape and limited in height, they are not considered to be of significant scale that would be inconsistent with surrounding land uses or community character. In addition, these elements would not be of significant visual bulk, due to their function and utilitarian design.

No new or replacement utility poles are proposed with the Project. The Gen-tie line within the 288-acre parcel would be undergrounded, and would either run above

ground (12 kV Borrego Valley Road Gen-tie Route) or aboveground or below ground (SDG&E 12kV Line Extension). Therefore, the Gen-tie line would not result in an element of significant visible bulk or scale. .

The proposed components would not represent elements that would detract from the existing visual character or quality of the site or that would significantly dominate or differ in size from existing components within the landscape.

Building Coverage

Building coverage is generally expressed as a percentage and represents the area of land covered by the footprint of a building. Building coverage is calculated as the building area divided by total lot area. The building footprint does not include paved areas, such as driveways or parking areas or walkways around structures, as defined by Section 1110 of the County Zoning Ordinance.

Many undeveloped lands are present in the area surrounding the Project site, and therefore, do not support buildings; refer to Figure 2, Aerial Photograph. The majority of surrounding developed lands are large-acre parcels with structures of varied square footage, depending on the use (i.e., single-family residential versus industrial. As lot sizes generally decrease south of Palm Canyon Drive and in the more developed areas of Borrego Springs, building coverage increases.

Of particular consideration is the Borrego Valley Airport, as it is immediately adjacent to the 53-acre lease parcel. The property totals approximately 191 acres with existing structures totaling an estimated 151,500 s.f. (includes airplane hangars). As such, building coverage is estimated to be approximately 1.8 percent (151,500 s.f./8,329,100 s.f.).

As stated earlier, up to five inverter/transformer enclosures would be constructed on the 288-acre parcel. Therefore, the maximum total square footage of the inverter stations would be approximately 2,000 s.f. (two 680 kW design, or 400 s.f. x five inverter stations). In addition, two 10,000 gallon water tanks (15-foot diameter) would be 354 s.f.; the storage building would total approximately 300 s.f.; the switch gear equipment pad would be approximately 10 feet by 10 feet, or 100 s.f.; the SCADA enclosure would be 10 feet by 30 feet, or 300 s.f.; and, the ultra capacitor pad would be 10 feet by 40 feet or 400 s.f. As the total land area affected by the Project on the 288-acre parcel would be approximately 45 acres, overall building coverage within the development area would be an estimated 0.17 percent (3,454 s.f./2,003,760 s.f.). As

such, Project building coverage would represent only a fractional portion of the development area, consistent with the generally rural character of surrounding lands.

Spacing between each row of CPV system modules along the horizontal axis would be approximately 82 feet (center to center); spacing along the horizontal axis would be approximately 69 feet (center to center). Although from an aerial perspective, the panels would appear to cover a substantial surface land area, the panels would be mounted on driven piles or drilled piers, thereby minimizing the footprint, or coverage, of each CPV system module.

The appearance of the above-described Project elements within the landscape is not anticipated to significantly detract from or contrast with the existing visual character and/or quality of the surrounding neighborhood, community, or localized area. The location, size, design, and operating characteristics of the proposed use would be compatible with adjacent uses, residents, buildings, and structures with consideration given to harmony in scale, bulk, and coverage.

- 2) Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.

Neither the main parcel nor other lands affected by the Project support designated landmarks, historic resources, significant trees, or rock outcroppings. Although the Project would result in the installation of the solar panels and associated facilities within the existing landscape, no significant visual resources would be affected by Project construction.

In addition, utility poles/lines are present along Palm Canyon Drive and Borrego Valley Road and the replacement/retrofitting or installation of any utility poles is not required or proposed with the Project. Therefore, the Project would not cause a substantial adverse change in the existing visual character of the affected lands.

As such, the Project as proposed would not result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area. Impacts would be less than significant, and no mitigation is required.

- 3) Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area.

The proposed facilities would be constructed on undeveloped lands just north of Palm Canyon Drive. As stated previously, land uses within the surrounding area include industrial and limited commercial-type uses, including the Borrego Valley Airport, a microwave tower, the Borrego Substation, a sand and gravel operation, and a large-scale commercial nursery. In addition, aboveground transmission facilities (poles/lines) cross the visual landscape along Palm Canyon Drive and Borrego Valley Road.

Project construction activities (i.e., construction vehicles, equipment to be installed, etc.) would be temporarily visible on the Project properties themselves and along the proposed transmission alignment(s); however, the identified sites occur within a rural environment, with limited visual resources. Construction activities may be somewhat visible from area roadways and adjoining properties; however, such effects would be temporary and would cease upon completion of construction.

The following is a discussion of views that would occur from identified vantage points in the surrounding area. Viewpoint locations are identified on Figures 10A and 10B, Key Viewpoint Location Map(s).

Views #1 and #2 – Palm Canyon Drive Looking Northeast and Northwest

Palm Canyon Drive is a two-lane, paved public road, running east-west approximately 2,300 feet to the south of the 288-acre parcel. Views of the CPV solar panels on the site would be limited from this roadway, due to distance from the road, minimal differences in elevation between the road and the Project site (generally flat viewing plane), existing vegetation and intervening land uses (i.e., Borrego Valley Airport); refer to Figures 11 and 12, which show views to the Project site looking northeast and northwest to the Project from Palm Canyon Drive. As the Project components would not be readily visible, the Project is not anticipated to substantially obstruct, interrupt, or detract from existing views from this public roadway.

View #3 – Borrego Valley Road / Borrego Substation

Borrego Valley Road is a two-lane, paved public roadway, running north-south, approximately one mile west of the 288-acre parcel; refer to Figure 13. The Borrego

Substation is located just east of Borrego Valley Road. Views of the solar panels on the Project site from this location would be obscured due to distance from this road, as well as intervening vegetation and topography.

Undeveloped, vacant lands generally border the existing SDG&E easement (12kV SDG&E Line Extension Route) and the proposed 50-foot wide private easement alignment (Borrego Valley Road Gen-tie Route) (with exception of the agricultural operation (plant nursery), with other undeveloped or low-density uses, as well as industrial uses, located further from either alignment. Construction activities required to install the transmission line along either of the two proposed Gen-tie routes would be visible; however, such activities would be temporary, and would cease upon completion. Additionally, SDG&E facilities (e.g. substation, transmission poles) are currently present in this area. As such, the proposed Project components would not be visible from this vantage point and would not cause a significant visual impact or substantially obstruct, interrupt, or detract from existing views.

View #4 Borrego Valley Airport

Views of the Project would occur from the Borrego Valley Airport. As demonstrated by Figure 14, views would generally be limited and would not be significantly changed from that which presently exists due to minimal differences in elevation (flat viewing plane), distance to the CPV solar panels, and viewshed through the Borrego Valley Airport facility. In addition, the panels and other structures would be low-lying within the landscape due to height. Other structures (i.e. inverter stations, storage building) would also not be readily apparent from this viewing location, due to height and distance from the Airport. As the Project components would not be readily visible from this vantage point, the Project is not anticipated to substantially obstruct, interrupt, or detract from existing views.

View # 5 - Montezuma Valley Road / S22

Views of the Project would occur from the S22/Montezuma Valley Road, which begins at the west end of Palm Canyon Drive, approximately four miles to the west of the Project site; refer to Figure 15. The road extends generally to the south/southwest of Borrego Springs. Views of the Project would vary along the winding roadway, but would be short in duration by viewers stopping along the road, or intermittently while traveling. Although the solar panels would be visible within the landscape from this roadway, such views would be intermittent and limited, due to the angle of view and

far viewing distance to the Project. Therefore, the Project would not create development that would obstruct or interrupt views from a public road or scenic highway.

View #6 – Anza Borrego Desert State Park / Font's Point

Font's Point is located within the Anza Borrego Desert State Park, approximately five miles to the east of the Project. Font's Point is a rock formation, rising approximately 1,220 feet amsl at the highest point of the plateau. The Point is accessed by an unpaved roadway extending from the Valley floor.

The Project as well as other existing large-scale built elements within the landscape (i.e., the Borrego Community, the Borrego Valley Airport, agricultural and various country clubs and golf courses) would be visible from this vantage point; refer to Figure 16. Views to the Project site would be intermittent from vehicles or hikers traveling up or down the formation. With consideration for distance to the Project site and elevation above the valley floor, as well as the limited size (height) of the panels, and the presence of other built elements within the landscape, the visual effect would be minimal and views from Font's Point would not be significantly changed with Project implementation.

Other Views

State Route 78 from the western to the eastern boundary of the Anza-Borrego Desert State Park is an existing official Scenic Highway, as identified in the Scenic Highway Element of the General Plan. Due to the distance of this vantage point from the Project site and intervening topography, views to the site are not anticipated; refer also to Figure 17 (Views 7 and 8). Similarly, views from Henderson Canyon Road to the north are not anticipated to be significantly impacted with installation of the solar facilities on the 288-acre parcel, due to distance from the site, variations in topography, and intervening vegetation; refer also to Figure 17 (View 9). As the Project would not significantly impact existing views from these locations, an in-depth analysis of the potential visual effects of the Project on these view locations was not performed herein.

A number of public trails exist on surrounding lands within the Borrego Springs area. Such trails may occur within the State Park or along the various mountain ranges that rise from the valley floor. Any potential views of the Project site from such trails would occur at a distance, thereby reducing the visibility of the proposed facilities. In

addition, views to the site from such trails would likely be intermittent due to topography as well as intervening vegetation along the trail. With consideration for distance to the Project site and the limited size (height) of the panels, along with other built elements visible within the landscape, the visual effect of the Project would be minimal and views would not be significantly changed with Project implementation.

In addition, the Project proposes dedication of a 15-foot wide trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to construct the trail at either of these locations at this time. Future views to the Project site would occur from the trail once constructed and, due to its close proximity to the CPV solar systems, the panels would be visible; however, as the viewer would generally be at eye-level with the panels and views would occur through the chain-link perimeter fence, views would be varied with regard to the range of view and length experienced. Views to the Project site would be limited to that when the viewer is facing or adjacent to the site; once past the site, the Project would no longer be visible without turning one's back. It should also be noted that without the Project, the easement for the trail would not exist, and no such views from the trail would occur. Although future views of the Project from the trail segment proposed with the Project would occur, such views are considered to be brief and restricted by topography and elevational similarities. With consideration for the limited size (height) of the panels, along with other built elements visible within the landscape of the valley floor, the visual effect of the Project would be minimal and views would not be significantly changed with Project implementation.

As such, it is not anticipated that the Project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road or a scenic vista or highway. In addition, views from established recreational areas would not be obstructed or interrupted with development of the site as proposed. Therefore, impacts would be less than significant, and no mitigation is required.

- 4) The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's zoning.

The Project as proposed has been designed to be consistent with all applicable goals, policies, and requirements of the County General Plan, Borrego Springs Community Plan, and the County Zoning Ordinance. The Project is not within a Historic District, and is therefore, not affected by such a plan. Refer also to the Land Use Compatibility Analysis (February 2013) prepared for the Project (under separate cover). As such,

Project impacts with regard to this issue would be less than significant, and no mitigation is required.

5.6 Cumulative Impact Analysis

Figure 18, Cumulative Projects, identifies the projects considered for the cumulative analysis. The study area selected for the Project generally includes those lands within proximity to properties affected by the Project, including lands adjacent to proposed transmission routes and the Borrego Substation. A list of projects considered for the cumulative analysis is included in Table 3, Cumulative Projects, below. The location of these projects is shown in Figure 18, Cumulative Projects Map.

**TABLE 3
CUMULATIVE PROJECTS**

Number*	Project Name
1	Borrego Springs Country Club TM
2	Borrego Country Club TM
3	Borrego Country Club Estates TM
4	Borrego Springs Senior Condominiums TM
5	Desert Diamond TPM
6	Bowen Jonas TPM
7	Borrego Sand and Rock Borrow Pit MUP, RECL PLAN
8	Borrego 50 Site Plan TM
9	Rams Hill MUP Min Dev 79-130-05 MOD/Deviation Montesoro Development Lot 1, 40-Lot Subdivision TM, MUP
10	Yaqui Pass GPA, SP, TM, REZ
11	Yaqui Pass TM
12	Miller TPM 4-Lot
13	Road Runner Club Pre-App TM MUP P99 MOD/Deviation
14	Rainshadow TPM
15	Borrego 138 TM, MUP
16	Bole TPM
17	Friestedt TM
18	Henderson Canyon TPM
19	U.S. Solar (NRG Borrego Solar One), MUP
20	EURUS Energy PV Solar Farm, MUP

* Project number refers to location as shown on Figure 18, Cumulative Projects Map.

Construction of currently approved and pending projects in the Project vicinity would permanently alter the nature and appearance of the area as future development occurs over upcoming years. Gradual buildout of the projects considered in the cumulative analysis would result in a change in the existing conditions over time; however, the change would not result in a significant impact as it would not substantially alter the overall visual landscape of the desert.

It is anticipated that future construction activities within the cumulative study area would occur on various sites and at varied times, when an application for development is made. Such construction-related impacts would be short-term and would cease upon completion. In addition, all new development projects within the

cumulative study area would be subject to additional environmental and design review on a site-specific, project-by-project basis to ensure visual aesthetic impacts are limited to the extent possible during the construction process. All future construction activities would be required to be consistent with the County's regulatory requirements and applicable conditions of approval to reduce potential cumulative effects of construction to less than significant.

In addition, future development of the cumulative projects in the Project vicinity could permanently convert existing offsite open space or undeveloped lands to developed lands, potentially resulting in the incremental loss of visible open space within the Borrego Springs community. Such future development could also contribute to the alteration of views to designated visual resources. All future development within the Borrego Springs community would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community.

The cumulative projects considered for the Visual Analysis are located throughout the Borrego Valley area; refer to Figure 18, Cumulative Projects Map. All but five of the projects are residential subdivisions. These additional planned residential uses represent a continuation of the existing development pattern in Borrego Valley. The five non-residential projects include a proposed sand and mining operation (located to the north of the Project site and not visible from the valley floor), a permit modification to an existing resort development, and three solar energy developments.

To date, two formal applications have been made to the County for solar energy projects within the Borrego Springs area, similar to that of the proposed Project. These include the U.S. Solar project (NRG Borrego Solar One project: P3300-10-026), located approximately 7,000 feet to the northwest of the proposed Project site at the southwest corner of Borrego Valley Road and Henderson Canyon Road (currently under construction), and the Avalon Borrego Solar project (MPA 10-015), located approximately 3.8 miles to the northwest of the Project site along Di Giorgio Road. The Avalon Borrego Solar project was withdrawn from County processing. Additionally, the EURUS Energy Solar Farm was approved in 2011 (P09-012 and P09-14), and proposed development of a 35-40 MW solar energy farm on approximately 341 acres (on the 288-acre subject parcel and 53 acres of the 104-acre parcel immediately adjacent to the south of the Project site). The Desert Green Solar Farm proposes a modification to the previously-approved P09-012.

As the Borrego Springs area offers a desert environment with abundant sunshine, combined with available undeveloped lands that are generally flat, the area represents optimal conditions for the sighting of solar energy facilities in the future. If proposed, it is anticipated that any future installation of solar panels along the valley floor would occur sporadically on available parcels as independent development applications, rather than concentrated in one large area of the valley. Thus, the cumulative visual effects of such installations would be reduced, as a range of small-scale to larger-scale projects would likely be proposed, depending on available land, proper zoning, and the nature of the applicant.

In addition, as evaluated for the proposed Project, potential glare impacts on a cumulative level as the result of additional solar energy facilities locating within the Borrego Valley would be less than significant. As all solar panels are designed to absorb sunlight, potential glare effects from future additional solar installations would not create significant glare or reflective surfaces that would create adverse effects on surrounding land uses or on views from surrounding vantage points.

Future solar installations along the valley floor would have a similar visual effect as other types of development would have in that they would generally change undeveloped land to developed land. Over time, it is anticipated that development within the Borrego Valley will continue to occur. As the valley floor is extensive, and the proposed Project site represents a minimal overall percentage of such lands, the proposed development is not expected to result in a significant visual change in the appearance of the valley floor when viewed from higher elevations. In addition, due to the limited height and scale of the proposed Project elements, the Project is not anticipated to contribute to a significant cumulative impact on existing views from locations within the valley, as such views would be restricted by relatively flat topography, and intervening development and vegetation.

Assuming a complete buildout of all the projects considered for the cumulative analysis, potential aesthetic cumulative impacts are considered to be less than significant for the following reasons:

The projects would not result in the introduction of feature that would detract or contrast with the existing visual features of the surrounding area. The existing development in the Borrego Valley consists of a range of uses that include high-end desert resorts, mobile home parks, agricultural uses, commercial uses, and single-family residential uses. The inclusion of the three solar projects (including the

proposed Project) in the land use mix would not conflict with the visual quality of the area because the solar projects are not concentrated in one area, or would reflect similar uses. These projects would not disrupt the pattern of development adjacent to existing homes or businesses, and would not conflict with specific design guidelines or specific thematic development requirements in the area.

The addition of the cumulative projects would not remove or create a substantial adverse change to the features that represent a valued visual resource in the area. The valley floor would still be visible from higher elevations and would still appear to have a scattered development pattern once the cumulative projects are constructed. None of the projects would alter the mountain views from the valley floor from places where they are currently observed. The cumulative projects would not remove or replace any local or State designated landmarks.

The proposed Project would not substantially obstruct or detract from valued lookouts or panoramic views from public roads, scenic highways, or recreational areas. Buildout of the cumulative projects would not have an adverse effect on these public viewsheds because the projects would match the existing development pattern in the Borrego Valley. As noted previously, most of the cumulative projects are residential projects or modifications to existing developments. From a vantage point where all of the developments would be visible, it would appear as the continuation of the existing development pattern in the area. In order to see all three proposed solar projects, the viewpoint would have to be located at a higher elevation than the valley floor and would be several miles away from any one of the proposed solar projects. Because of the distance between the solar projects and the distance from the public viewpoints, the cumulative visual effect of the solar projects would not substantially obstruct views from scenic vistas or public roads.

Moreover, the cumulative projects would be required to comply with applicable goals and policies of the County General Plan, Borrego Springs Community Plan, and County Zoning Ordinance. Only one project, the Yaqui Pass project (GPA, Specific Plan, Tentative Map, and Rezone) proposes to change the existing County General Plan and Zoning Ordinance. Specific analysis to show compatibility of the Yaqui Pass project would be required prior to approval of the project.

In addition, all lighting proposed with future development within the cumulative study area, such as street lighting, security lighting, or exterior illumination, would potentially result in increased light and glare impacts within the Borrego Springs

community. Projects within the cumulative study area would be evaluated by the County and the Borrego Springs Community Sponsor Group on a project-by-project basis to determine the extent of such lighting necessary and any appropriate site-specific measures to reduce potential impacts on surrounding areas (i.e., shielding, use of low-level lighting, directing lighting away from adjacent properties and open space areas). As such, it is anticipated that the cumulative effects of increased lighting and/or glare associated with future development in the cumulative study area would be reduced to less than significant levels. As the Project would require minimal lighting for the purposes of security and maintenance, the Project would not contribute to significant cumulative impacts relative to light and/or glare. Impacts in this regard would be less than significant.

All future development within the Borrego Springs community would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community. Adherence to applicable General Plan policies and goals and applicable County Design Standards would further reduce potential cumulative impacts relative to the long-term alteration of views to designated scenic resources. Although the Project would result in a permanent visual change in the existing landscape with development of the proposed CPV solar farm, as demonstrated by evaluation of the visual simulations prepared, the Project is not considered to contribute to a significant cumulative effect with regard to the loss of views to scenic resources.

5.7 Summary of Project Impacts and Significance and Conclusions

The Visual Resources/Aesthetics Analysis was prepared to provide an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Borrego Springs, California. With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore,

the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Borrego Springs Community Plan, or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Borrego Springs community. As such, no mitigation measures are required or proposed.

6.0 Visual Mitigation Measures / Design Considerations

6.1 Visual Impact Analysis

The Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the Borrego Springs community by conflicting with visual elements or quality of an existing area. In addition, the Project would not result in the removal of or substantial adverse change of one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Borrego Springs Community Plan, Borrego Valley Airport Land Use Consistency Plan, or other applicable regulations and ordinances.

In addition, on November 30, 2009, the applicant for the previously-approved MUP associated with the Project site (P09-012) received a determination of “No Hazard to Air Navigation” from the FAA, thereby indicating that the Project would not interfere with operations at the Borrego Valley Airport. As the current Project design, which requires a modification to the existing MUP, is similar in design and operational characteristics to the previously-approved project, the FAA has reviewed the Project and issued a similar determination of “No Hazard to Air Navigation.” Additionally, an Airport Land Use Consistency Determination was issued by the San Diego County Regional Airport Authority for the Project site on January 6, 2011. Per confirmation from the San Diego County Regional Airport Authority, a new determination is not required for the proposed Project, as the original determination referenced a height of 35 feet which would not be exceeded by the proposed modification to P09-012.

Design measures contributing to reduced visibility of the Project facilities within the landscape include the 30-foot setback from the Project perimeter for emergency access and reduction of the potential for wildfire to occur. In addition, proposed structures

(e.g. storage building, inverter stations) would have an exterior surface that is earthtoned. Access to the affected parcel would be provided through a secured gate and identified by minimal signage, rather than decorative or otherwise highly visible design features. Although the Project would change the visual character of the affected parcel, the proposed facilities would be consistent with development intended for the properties as indicated by the existing General Plan land use and zoning designations, and would be visually compatible with other existing uses in the surrounding area (i.e. Borrego Valley Airport, sand and gravel operation, communications tower, Borrego Substation) which support structural elements or design characteristics (i.e. materials, colors, etc.) similar to that associated with the Project. Other Project components, such as the water line and portions of the Gen-tie line, would be undergrounded, and would therefore not be visible or contribute to a change in the existing visual landscape.

For the above reasons, no significant impacts on visual resources/aesthetics are anticipated to occur with Project implementation. Therefore, no mitigation measures are required or proposed.

Through this Visual Resources/Aesthetics Analysis, potential effects of the CPV Solar Farm Project were evaluated against the thresholds of significance developed by the County of San Diego. The Project is considered to be compatible with the existing character of the surrounding Borrego Springs community, and would be consistent with applicable County and community land use regulations with regard to visual and aesthetic resources. No significant impacts were identified with regard to visual/aesthetic resources. As such, Project impacts would be less than significant, and no mitigation measures are required or proposed.

7.0 References

Borrego Springs Community Plan. Adopted August 2011.

Borrego Valley Airport Land Use Compatibility Plan. December 2006.

County of San Diego General Plan. Adopted August 2011.

County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources. July 30, 2007.

County of San Diego Zoning Ordinance. Updated with Ordinance Update No. 80, October 2009.

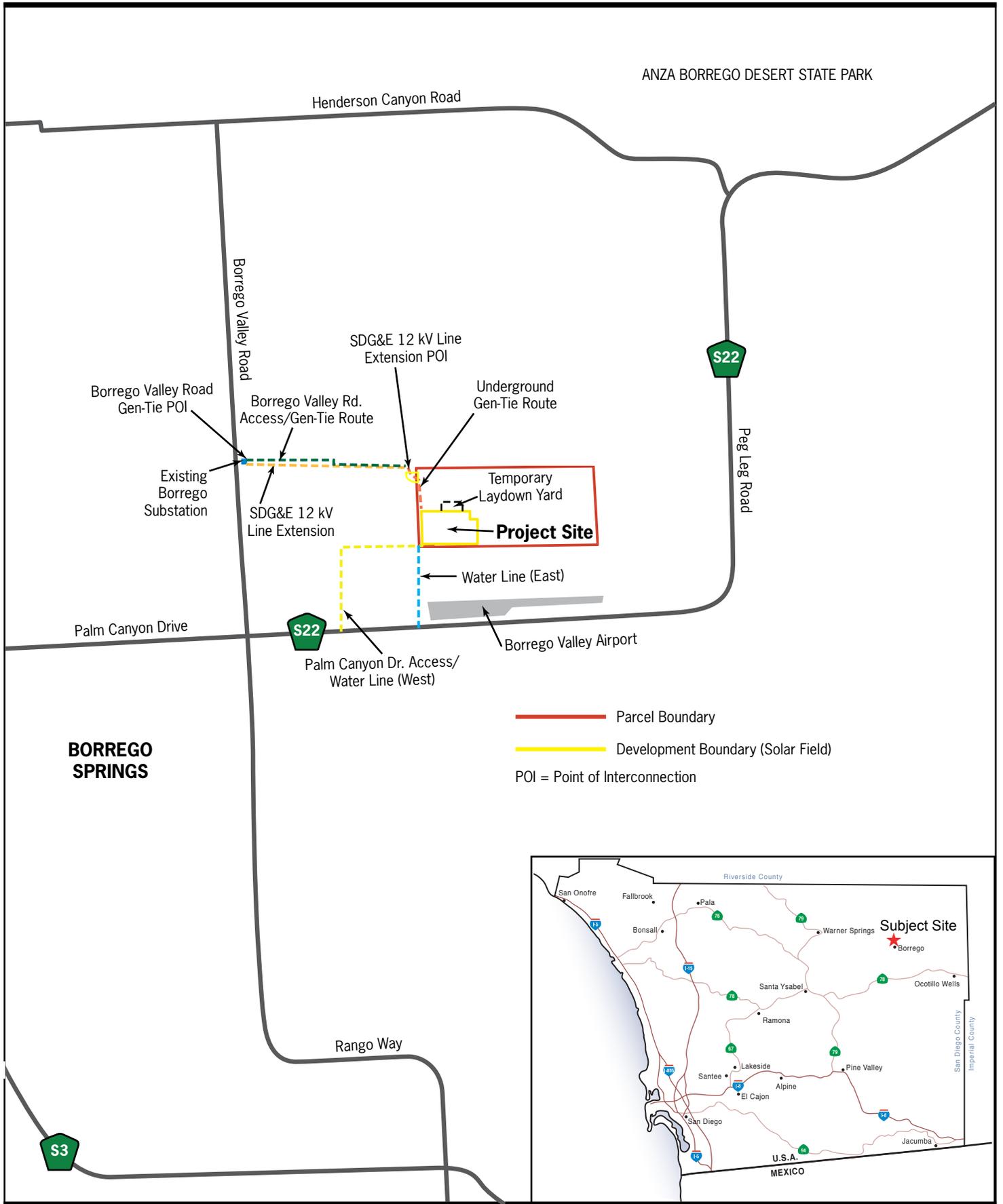
County of San Diego Wildland Urban Interface Ordinance. Ordinance No. 9670.

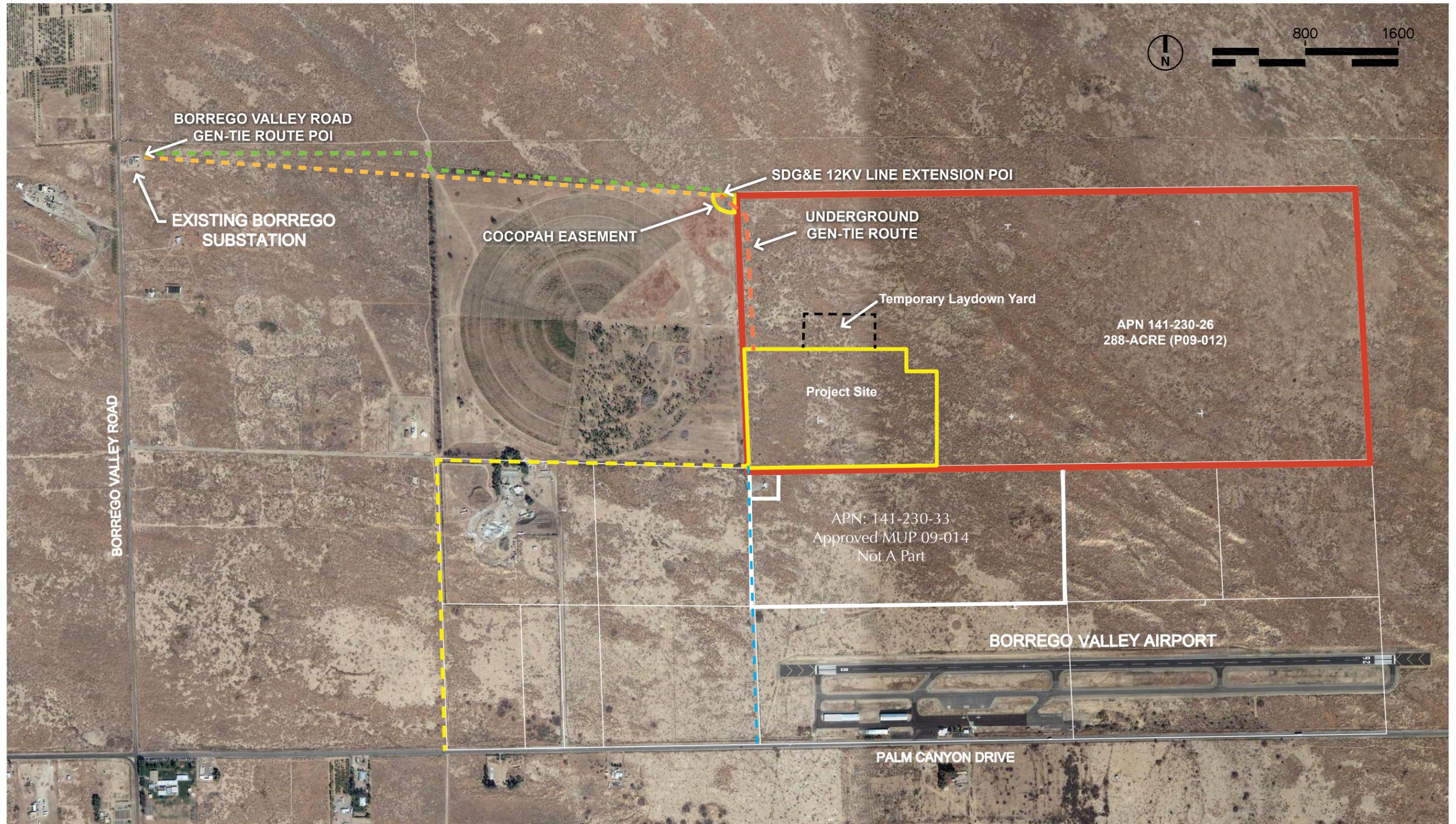
8.0 Report Preparers

RBF Consulting

Alex H. Jewell, AICP, LEED AP
Environmental Project Manager
County-Certified Preparer for Visual Impact Analyses

Nicole Marotz, AICP, LEED AP
Environmental Planner
Primary Author of Visual Impact Analysis





Source: Eagle Aerial, 2008.



SDMac:5388_tabloid_landscape-00.indd

- Parcel Boundary
 - Development Boundary (Solar Field)
 - - - Borrego Valley Road Access/Gen-Tie Route
 - - - SDG&E 12kV Line Extension to Existing Borrego Substation
 - - - Underground Gen-Tie Route
 - - - Temporary Laydown Yard
 - - - Palm Canyon Drive Access Route/West Water Line
 - - - East Water Line
- POI = Point of Interconnection

Aerial Photograph

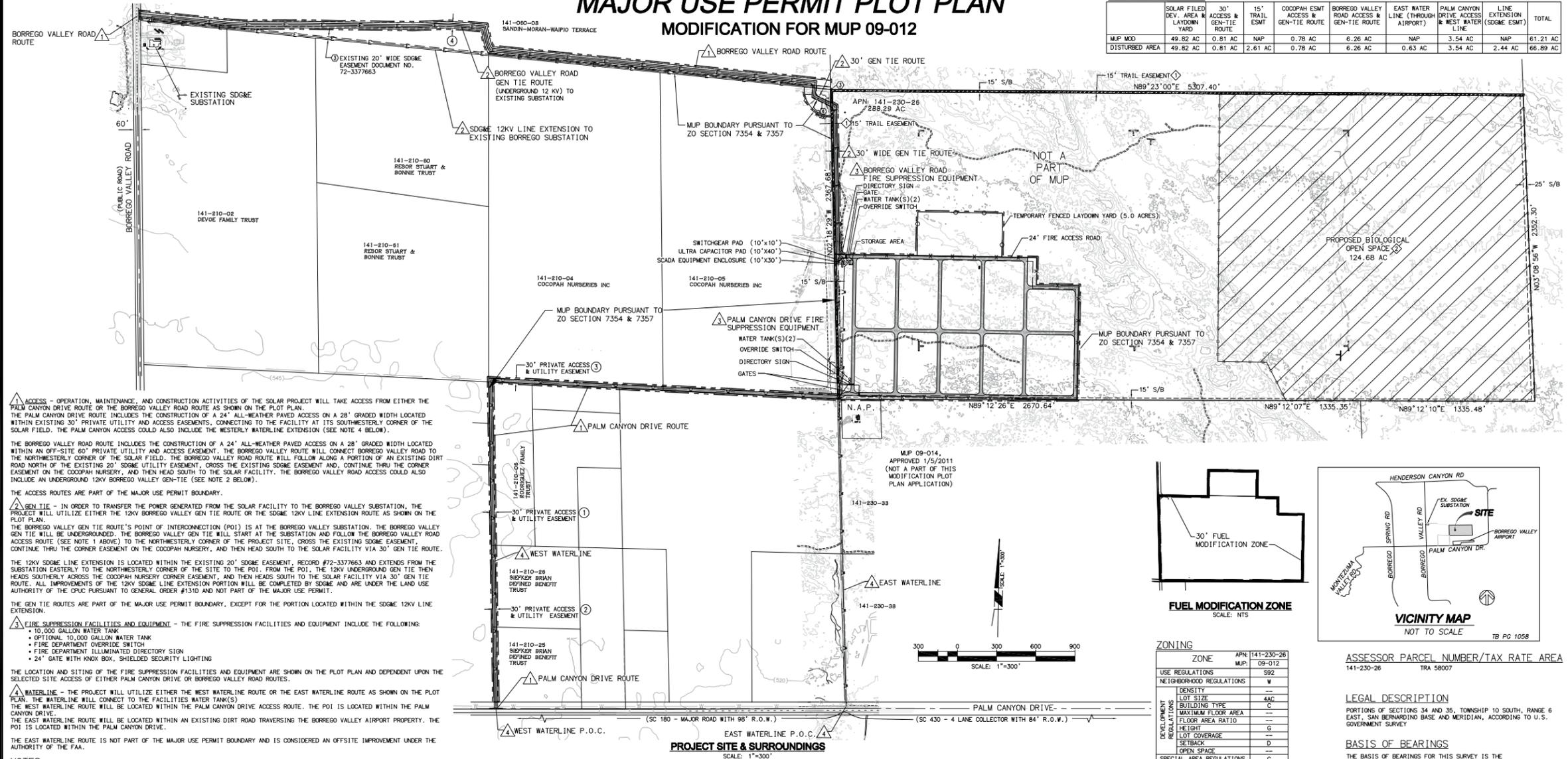
Desert Green Solar Farm

Figure 2

MAJOR USE PERMIT PLOT PLAN MODIFICATION FOR MUP 09-012

LAND USE SUMMARY

	SOLAR FILED DEV. AREA & LAYDOWN YARD	30' ACCESS & GEN-TIE ROUTE	15' TRAIL ESMT	COCOPAH ESMT ACCESS & GEN-TIE ROUTE	BORREGO VALLEY ROAD ACCESS & GEN-TIE ROUTE	EAST WATER LINE (THROUGH AIRPORT)	PALM CANYON DRIVE ACCESS & WEST WATER LINE	LINE EXTENSION (SDG&E ESMT)	TOTAL
MUP MOD	49.82 AC	0.81 AC	N/A	0.78 AC	6.26 AC	N/A	3.54 AC	N/A	61.21 AC
DISTURBED AREA	49.82 AC	0.81 AC	2.61 AC	0.78 AC	6.26 AC	0.63 AC	3.54 AC	2.44 AC	66.89 AC



ACCESS - OPERATION, MAINTENANCE, AND CONSTRUCTION ACTIVITIES OF THE SOLAR PROJECT WILL TAKE ACCESS FROM EITHER THE PALM CANYON DRIVE ROUTE OR THE BORREGO VALLEY ROAD ROUTE AS SHOWN ON THE PLOT PLAN.

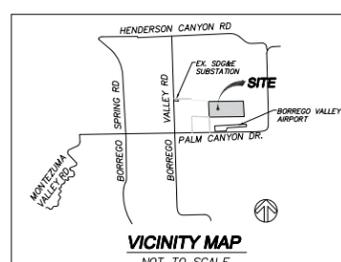
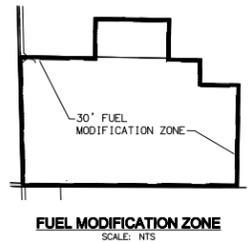
GEN TIE - IN ORDER TO TRANSFER THE POWER GENERATED FROM THE SOLAR FACILITY TO THE BORREGO VALLEY SUBSTATION, THE PROJECT WILL UTILIZE EITHER THE 12KV BORREGO VALLEY GEN TIE ROUTE OR THE SDG&E 12KV LINE EXTENSION ROUTE AS SHOWN ON THE PLOT PLAN.

FIRE SUPPRESSION FACILITIES AND EQUIPMENT - THE FIRE SUPPRESSION FACILITIES AND EQUIPMENT INCLUDE THE FOLLOWING:

- 10,000 GALLON WATER TANK
- OPTIONAL 10,000 GALLON WATER TANK
- FIRE DEPARTMENT OVERRIDE SWITCH
- FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
- 24' GATE WITH KNOX BOX, SHIELDED SECURITY LIGHTING

NOTES

- GROSS AREA: 288.29 ACRES (APN 141-230-26)
- NET AREA: 288.29 ACRES (APN 141-230-26)
- TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 5/8/09 & INTERMAP FLOWN 2005
- ASSOCIATED REQUESTS: NONE
- THE APPROVAL OF THIS MAJOR USE PERMIT MODIFICATION (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A CPV SOLAR FARM PURSUANT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
- THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
- ALL STRUCTURES TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
- NO LANDSCAPING PROPOSED.
- LIGHTING FOR MAINTENANCE AND SECURITY PURPOSES ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 3.
- PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE WITHIN DEVELOPMENT AREA.
- ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
- SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
- ONLY DIRECTIONAL, LIMITS OF OPEN SPACE AND SAFETY SIGNAGE ARE PROPOSED.
- NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "OPEN SPACE".
- SEE SHEET 2 FOR LEGEND.
- THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 06073C0675F THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
- SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED KNOX KEY-OPERATED SWITCH.
- SOLAR RELATED FACILITIES (PANELS, ELECTRICAL CONNECTIONS, TRANSFORMER/ INVERTER PLATFORM, STORAGE BUILDING, EMERGENCY GENERATOR, FENCING, INTERNAL ACCESS AND SWITCHGEAR PLATFORM, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF PDS WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMITS APPROVAL. TRANSFORMER/INVERTER/GENERATOR SIZE LOCATIONS, BRAND, ELECTRICAL SIZE CAN BE RELOCATED, REPLACED OR RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE TRANSFORMER/INVERTER/GENERATOR MUST COMPLY WITH NOISE ORDINANCE AND MUST BE ELEVATED 1' ABOVE BASE FLOOD ELEVATION. THE 24' WIDE FIRE ACCESS ROAD WIDTHS MAY BE REDUCED ADMINISTRATIVELY WITH THE APPROVAL OF THE COUNTY FIRE AUTHORITY AND THE BORREGO SPRINGS FIRE PROTECTION DISTRICT.
- THE ENTIRETY OF THE PARCEL ENCOMBERED BY MUP 09-012 (APN 141-230-26-00) IS SUBJECT TO THE RESTRICTIONS AND TERMS OF A COUNTY AVIATION EASEMENT.
- TOTAL SOLAR TRACKER HEIGHT WILL NOT EXCEED 30 FEET.
- WATER DISTRICT: BORREGO WATER DISTRICT.
- ALL STRUCTURES, TRANSFORMER/INVERTER PLATFORM AND ELECTRICAL PADS TO BE ON PIERS.
- 10,000 GAL. WATER TANK(S) WITH FIRE DEPARTMENT CONNECTION.
- NO DEVELOPMENT IS ALLOWED WITHIN THE NOT A PART AREA WITHOUT A SUBSEQUENT PERMIT AND/OR DISCRETIONARY REVIEW.
- PROVIDE OVERRIDE SWITCH CONTROL NEAR MAIN ENTRY TO ALLOW FIRE DEPARTMENT TO MOVE TRACKERS INTO STOW POSITION.
- TRAIL EASEMENT TO ALLOW UTILITY LINES UNDERGROUND.



ZONING

ZONE	APN	MUP
USE REGULATIONS	141-230-26	09-012
NEIGHBORHOOD REGULATIONS		W
DENSITY		---
LOT SIZE		---
BUILDING TYPE		---
MAXIMUM FLOOR AREA		---
FLOOR AREA RATIO		---
HEIGHT		---
DEVELOPMENT REGULATIONS		G
LOT COVERAGE		---
SETBACK		---
OPEN SPACE		---
SPECIAL AREA REGULATIONS		C

ASSESSOR PARCEL NUMBER/TAX RATE AREA
141-230-26 TRA 58007

LEGAL DESCRIPTION
PORTIONS OF SECTIONS 34 AND 35, TOWNSHIP 10 SOUTH, RANGE 6 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO U.S. GOVERNMENT SURVEY

BASIS OF BEARINGS
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6 AS DETERMINED BY THE LINE BETWEEN NATIONAL GEODETIC SURVEY (NS) STATIONS '13 AR ECC' AND 'BOR 12' WITH A BEARING OF N42°35'10"W.

BENCHMARK
NS STATION BOR 9, A 4" BRASS DISK IN 6" CONCRETE BASE 4.5' SOUTHEAST OF POWER POLE #319 AND 30' NORTHEAST OF THE EDGE OF BORREGO VALLEY ROAD. ELEVATION = 521.86 DATUM: NAVD88

APPLICANT
DESERT GREEN SOLAR FARM LLC
C/O CLARK GRANFORD
ATTORNEY-IN-FACT
16650 VIA ESPERILLO
SAN DIEGO, CA 92127
CONTACT: PATRICK BROWN
(619) 735-2649

SHEET INDEX
SHEET 1 - TITLE SHEET
SHEET 2 - PLOT PLAN
SHEET 3 - PROPOSED ELEVATIONS/DETAILS

**DESERT GREEN SOLAR FARM
BORREGO SPRINGS, CA
MODIFICATION FOR MUP 09-012
(NO CHANGE TO MUP 09-014)
ER NO. 09-05-001A
TITLE SHEET
FEBRUARY 22, 2013
SHEET 1 OF 3**

RBF CONSULTING

PROPOSED EASEMENTS

DESCRIPTION	DISPOSITION
15' TRAIL EASEMENT	TO REMAIN
OPEN BIOLOGICAL SPACE EASEMENT (SHT. 1)	TO REMAIN

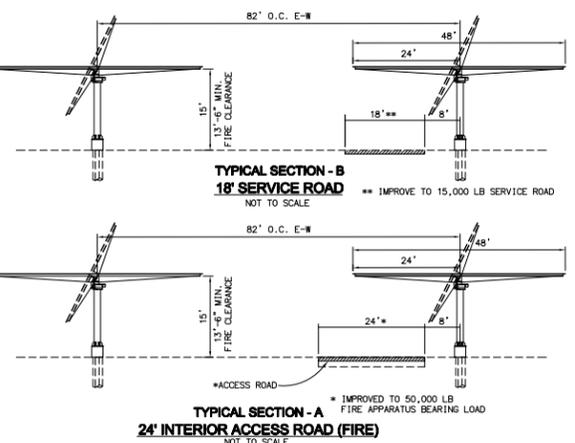
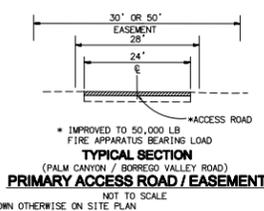
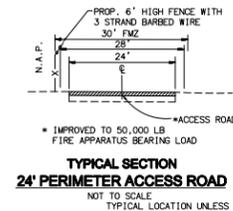
EXISTING EASEMENTS*

DESCRIPTION	DISPOSITION
SDG&E EASEMENT	TO REMAIN
ACCESS & UTILITY EASEMENT (200' RADIUS)	TO REMAIN

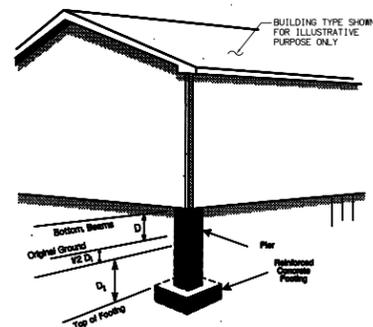
* BASED ON DATA FROM PRELIMINARY TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY, ORDER NO. 11-72513743-D-P-PP, DATED MAY 16, 2012.

RECORDED EASEMENTS

DESCRIPTION	DATE
30' PRIVATE ACCESS & UTILITY EASEMENT	2012-02-25/574
30' PRIVATE ACCESS & UTILITY EASEMENT	2012-2-25/573
30' PRIVATE ACCESS & UTILITY EASEMENT	2012-02-28/2029
50' PRIVATE ACCESS & UTILITY EASEMENT	



MAJOR USE PERMIT PLOT PLAN MODIFICATION FOR MUP 09-012



Depth of Erosion Protection
Footings for slab foundations must be constructed to a depth below the prevailing ground level as shown in Figure II-1.5ht. The necessary depth of construction for these footings is based on the Borrego Valley Alluvial Fan Map.

The flood depth (D) shown for the particular location is converted to a construction depth (D_c) based on the velocity shown on the map, using the following table:

Velocity (V)	Construction Depth (D _c)
4 Feet/Second	D _c = D
6 Feet/Second	D _c = D
8 Feet/Second	D _c = 1.4 x D
Over 8 Feet/Second	Study Required

Where: D_c = Depth Below Ground (Feet)
D = Depth Shown on Alluvial Fan Map (Feet)
V = Velocity Shown on Alluvial Fan Map (Feet/Second)

Erosion protection made of rock, gabions, or rip-rap must be installed to the depth D_c.

**D_c Pier Scour
Depth of Scour (feet)**

Velocity (ft/sec)	5	6	8	10	12
1	.70	1.00	1.20	1.50	1.70
2	1.00	1.50	1.80	2.20	2.50
4	1.50	2.20	2.80	3.50	3.80
6	2.20	3.20	4.00	5.00	5.50
8	3.00	4.20	5.20	6.50	7.00
10	3.80	5.20	6.50	8.00	8.50
12	4.50	6.20	7.80	9.50	10.00

**TYPICAL SECTION
FOUNDATION FOOTING OPTIONS
TRANSFORMER / INVERTER PLATFORM
STORAGE, CABINETS, O&M STRUCTURE**

N.T.S.

SOURCE: BORREGO VALLEY FLOOD MANAGEMENT REPORT DATED OCT. 1989

NOTE: A PIER FOUNDATION DESIGN IS SELECTED TO RAISE THE BUILDINGS SO THEY ARE AT LEAST 1' ABOVE THE BASE FLOOD ELEVATION. THEN A CLOWR/LOWR PROCESS IS NOT NEEDED.

PROJECT STRUCTURES COVERAGE TABLE

ITEM DESCRIPTION	AREA	UNIT	QUANTITY	TOTAL AREA	UNIT	
INVERTER PLATFORM (10'x40')	400	SF	5	2,000	SF	
STORAGE STRUCTURE (10'x30')	300	SF	1	300	SF	
10,000 GAL. WATER TANK	177	SF	2	354	SF	
EMERGENCY GENERATOR (12'x20')	240	SF	1	240	SF	
SWITCHGEAR PAD (10'x10')	100	SF	1	100	SF	
ULTRA CAPACITOR PAD (10'x40')	400	SF	1	400	SF	
SCADA EQUIPMENT (10'x30')	300	SF	1	300	SF	
SUB TOTAL					3,694	SF
EQUIV=					0.08	AC
SOLAR PANEL (25'x48')					308	AC
TOTAL					8.56	AC
3.0% OF PARCEL COVERAGE						

PROPOSED EASEMENTS

DESCRIPTION

1. 15' TRAIL EASEMENT

2. OPEN BIOLOGICAL SPACE EASEMENT (SHT. 1)

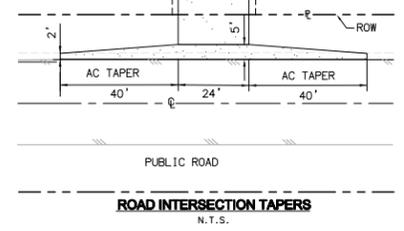
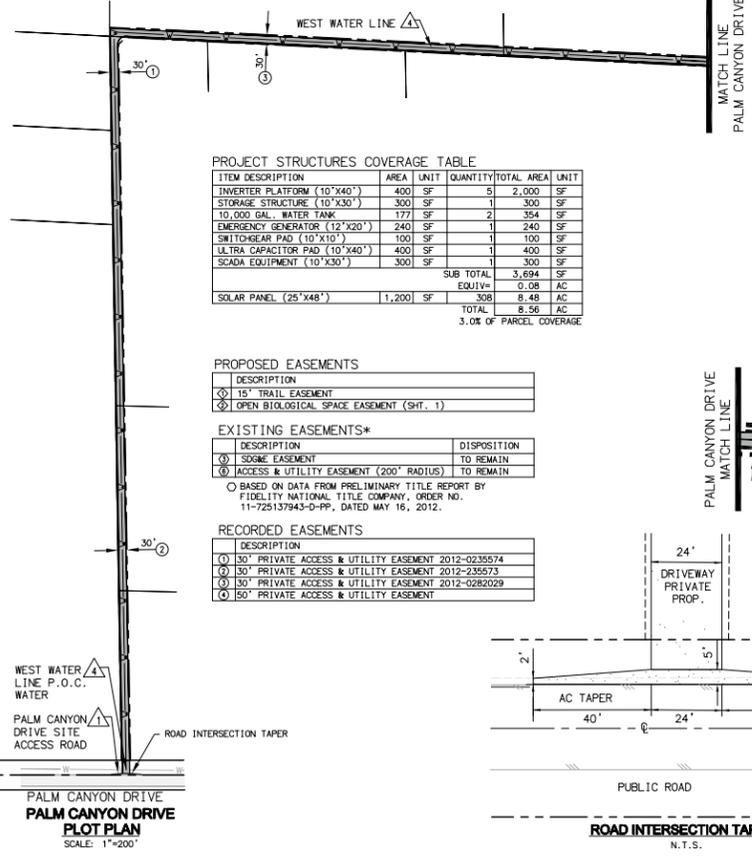
EXISTING EASEMENTS*

DESCRIPTION	DISPOSITION
1. SDG&E EASEMENT	TO REMAIN
2. ACCESS & UTILITY EASEMENT (200' RADIUS)	TO REMAIN

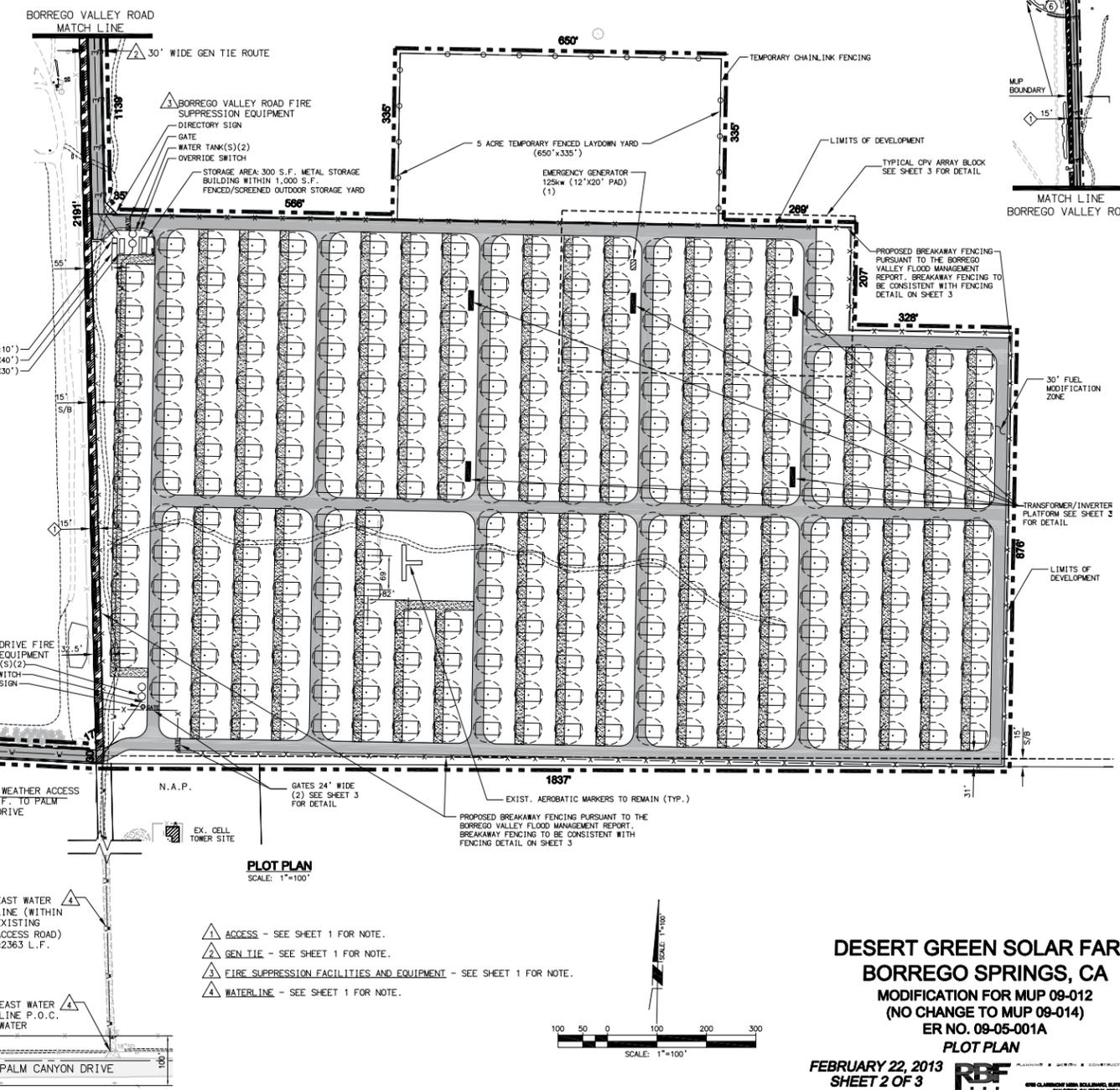
* BASED ON DATA FROM PRELIMINARY TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY, ORDER NO. 11-725137943-0-PP, DATED MAY 16, 2012.

RECORDED EASEMENTS

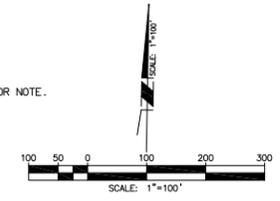
DESCRIPTION
1. 30' PRIVATE ACCESS & UTILITY EASEMENT 2012-0235574
2. 30' PRIVATE ACCESS & UTILITY EASEMENT 2012-235573
3. 30' PRIVATE ACCESS & UTILITY EASEMENT 2012-0262029
4. 50' PRIVATE ACCESS & UTILITY EASEMENT



- LEGEND:**
- MAJOR USE PERMIT BOUNDARY
 - TAX ASSESSOR BOUNDARY
 - LIMITED BUILDING ZONE LINE
 - EX. 6" CHAINLINK FENCE
 - PROP. 6" CHAINLINK BREAKAWAY FENCE WITH 3 STRAND BARBED WIRE
 - TEMPORARY FENCING
 - PROP. 24" FIRE ACCESS ROAD-ALL WEATHER (10% GRADIENT MAX) 50,000 LB.
 - PROP. 18" SERVICE ROAD 15,000 LB.
 - PROP. TRAIL EASEMENT
 - BUILDING SETBACK LINE (S/B)
 - PROP. WATER LINE
 - PROP. UNDERGROUND POWER LINE
 - TRANSFORMER/INVERTER PLATFORM (4 - DUAL 630kw & 1 - DUAL 720kw INVERTER PLATFORM)
 - EMERGENCY GENERATOR PLATFORM
 - CPV ARRAY (308)
 - PROP. BIOLOGICAL OPEN SPACE (124.66 AC.) WITH OPEN SPACE SIGNAGE SEE DETAIL ON SHEET 3
 - SWITCHGEAR PAD (10'x10')
 - ULTRA CAPACITOR PAD (10'x40')
 - SCADA EQUIPMENT ENCLOSURE (10'x30')



- △ ACCESS - SEE SHEET 1 FOR NOTE.
- △ GEN TIE - SEE SHEET 1 FOR NOTE.
- △ FIRE SUPPRESSION FACILITIES AND EQUIPMENT - SEE SHEET 1 FOR NOTE.
- △ WATERLINE - SEE SHEET 1 FOR NOTE.



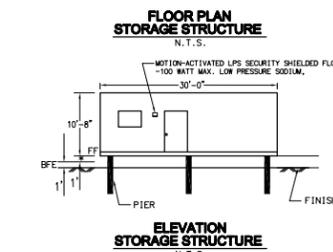
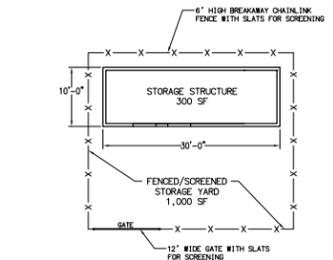
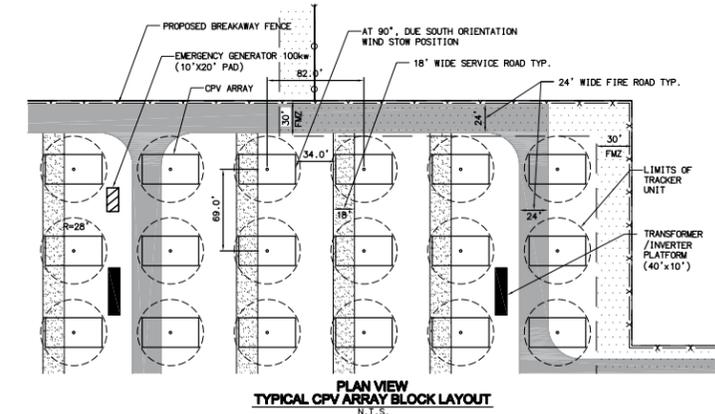
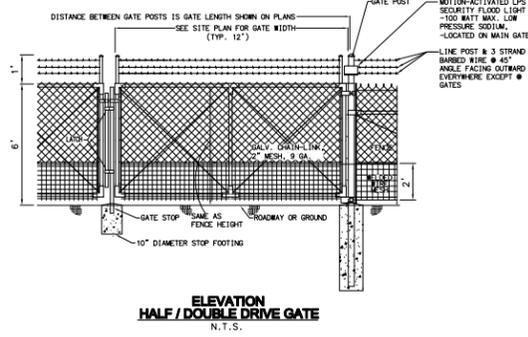
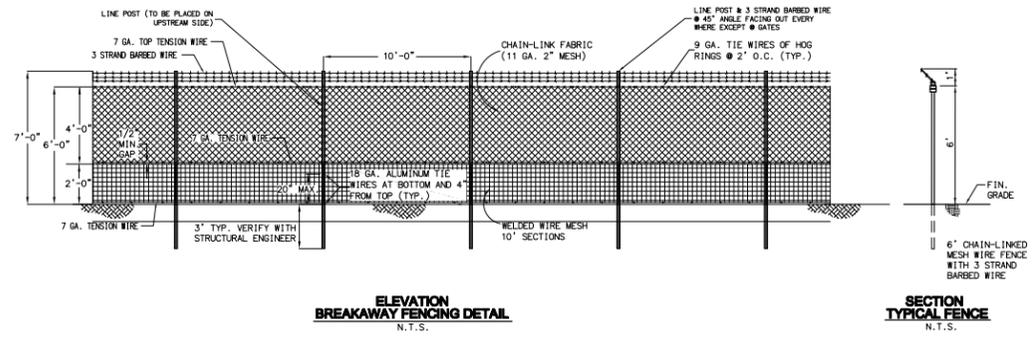
**DESERT GREEN SOLAR FARM
BORREGO SPRINGS, CA**

MODIFICATION FOR MUP 09-012
(NO CHANGE TO MUP 09-014)
ER NO. 09-05-001A
PLOT PLAN
FEBRUARY 22, 2013
SHEET 2 OF 3

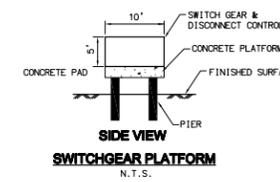
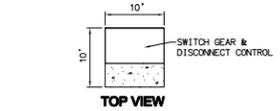
RBF CONSULTING

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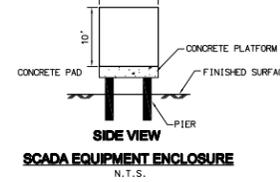
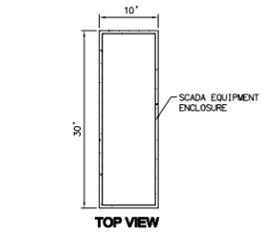
MAJOR USE PERMIT PLOT PLAN MODIFICATION FOR MUP 09-012



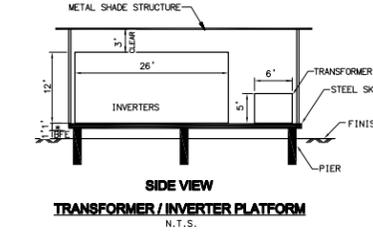
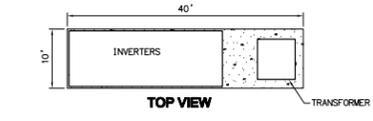
* FINISH FLOOR SHALL BE ELEVATED AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



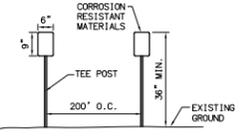
* ALL ACCESSORY STRUCTURES SHALL BE PAINTED OR VISUALLY TREATED TO BLEND WITH THE SURROUNDINGS
* PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



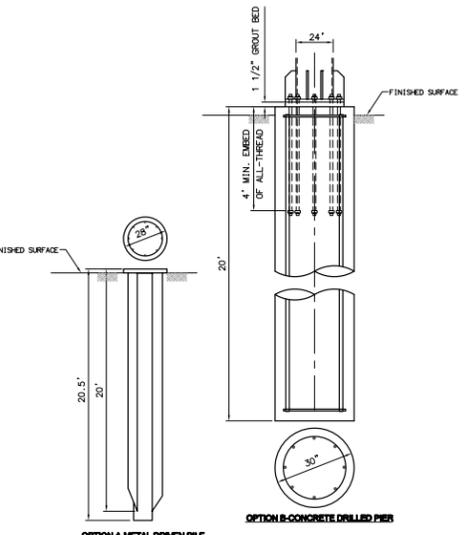
* ALL ACCESSORY STRUCTURES SHALL BE PAINTED OR VISUALLY TREATED TO BLEND WITH THE SURROUNDINGS
* PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



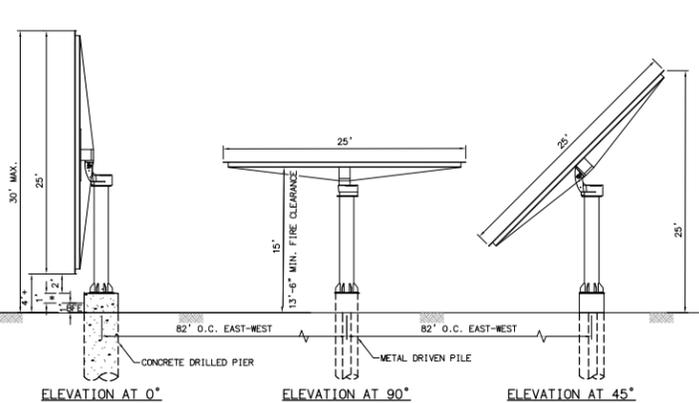
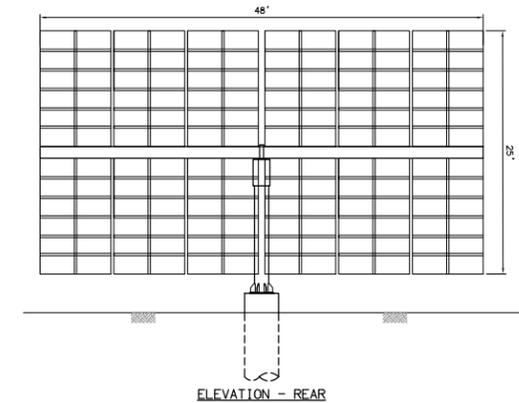
* ALL ACCESSORY STRUCTURES SHALL BE PAINTED OR VISUALLY TREATED TO BLEND WITH THE SURROUNDINGS
* ALL TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.
* NUMBER OF PLATFORMS: 4 - DUAL 630kw & 1 - DUAL 720kv INVERTER PLATFORM
* THE TRANSFORMER / INVERTERS WILL BE PLACED WITHIN A METAL ENCLOSURE OR COVERED BY A METAL SHADE STRUCTURE TO PROTECT THE EQUIPMENT FROM THE ELEMENTS.



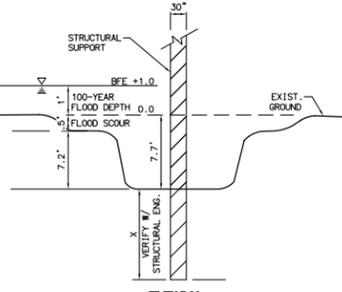
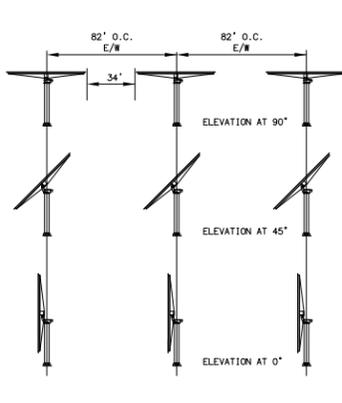
NOTE: PLACE SIGN ON 200' INTERVALS TO DENOTE OPEN SPACE. SIGNS CAN ALSO BE ATTACHED TO PROPOSED FENCE OR ON TEE POST



* DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
* ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER/INVERTER PLATFORM, SWITCH GEAR PAD, GENERATOR AND WATER TANK SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.

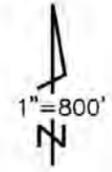


* DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
* ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



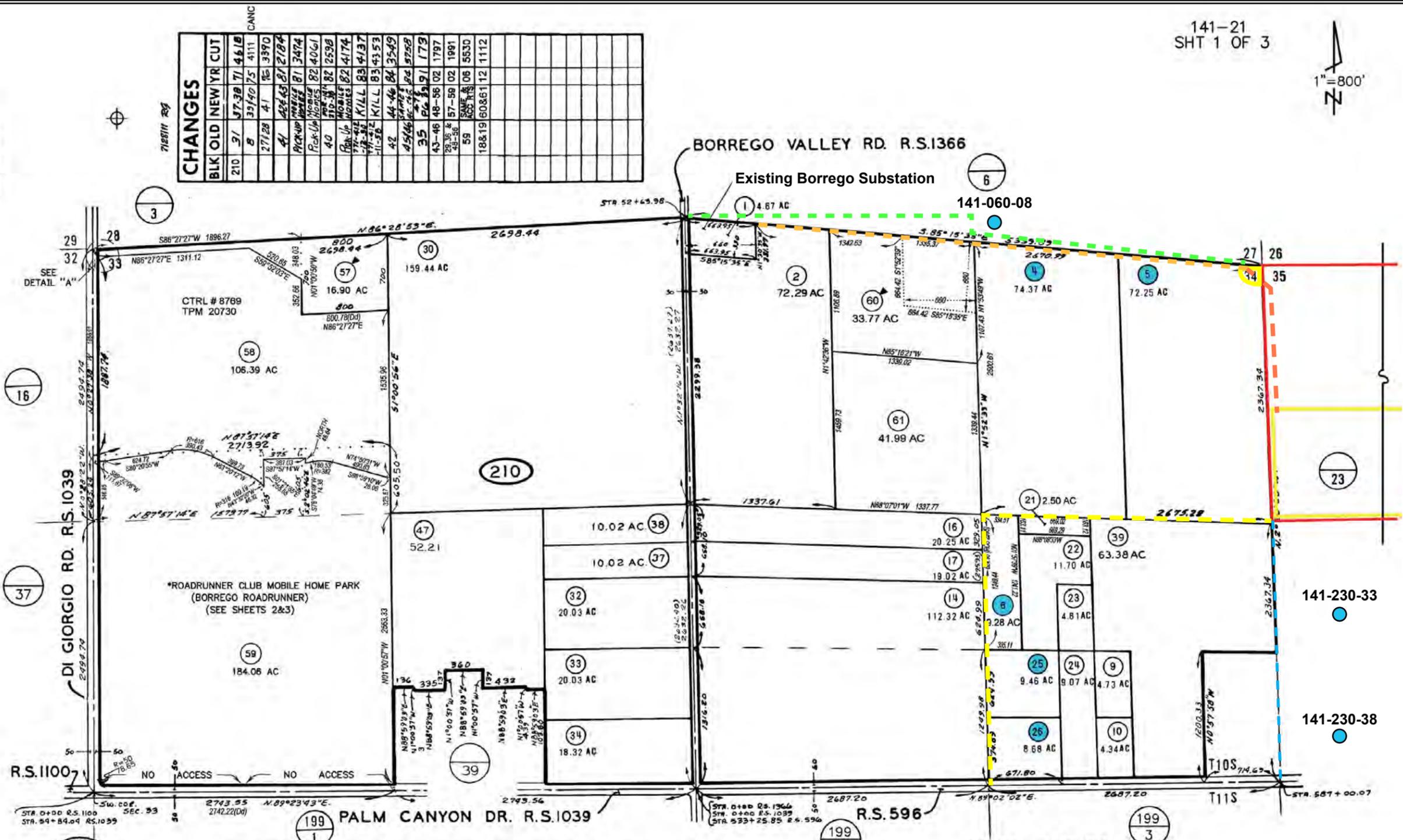
SOURCE: BORREGO VALLEY FLOOD MANAGEMENT REPORT DATED OCT. 1999

**DESERT GREEN SOLAR FARM
BORREGO SPRINGS, CA**
MODIFICATION FOR MUP 09-012
(NO CHANGE TO MUP 09-014)
ER NO. 09-05-001A
PROPOSED ELEVATIONS/DETAILS
FEBRUARY 22, 2013
SHEET 3 OF 3



CHANGES		BLK	OLD	NEW	YR	CUT
210	31	37-38	71	4618		
	8	37-40	75	4111		
	27	28	41	3390		
	41	42-43	81	2184		
	40	Pick-Up	Mobile Home	81	3474	
	40	Pick-Up	Mobile Home	82	4061	
	40	Pick-Up	Mobile Home	82	2598	
	40	Pick-Up	Mobile Home	82	4174	
	40	Pick-Up	Mobile Home	83	4137	
	40	Pick-Up	Mobile Home	83	4353	
	42	44-46	84	3549		
	45	46-48	84	8758		
	35	49-51	84	179		
	43-46	48-56	02	1797		
	57-59	59	02	1991		
	59	60-62	06	5530		
	18819	60&61	12	1112		

141-20 & 21



THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES.

SEC 33 - T10S-R6E
SEC 34 - T10S-R6E
ROS 988, 1569, 2412, 2995, 8455, 19726

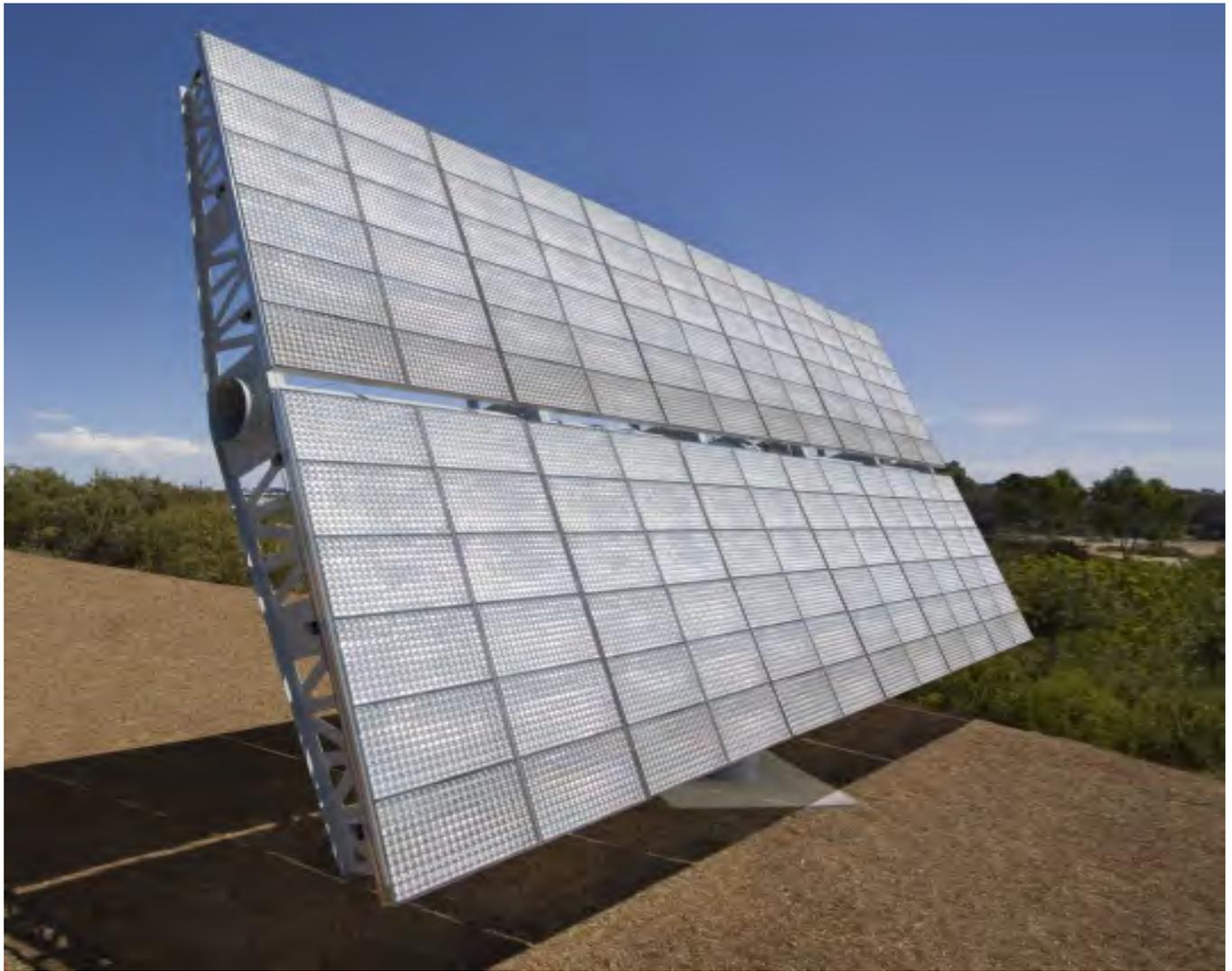


- Parcel Boundary
- - - Development Boundary (Solar Field)
- - - Borrego Valley Road Access/Gen-Tie Route
- - - SDG&E 12kV Line Extension to Existing Borrego Substation
- - - Underground Gen-Tie Route
- - - Palm Canyon Drive Access Route/West Water Line
- - - East Water Line
- Potentially Affected Parcels

Assessor's Parcel Map / Potentially Affected Lands

Desert Green Solar Farm

Figure 3D



Concentrated photovoltaic (CPV) dual-axis tracking system



Concentrix modules lens plate (Fresnel lens)



Photo 1: View looking northwest/northeast from south of Project site (offsite).

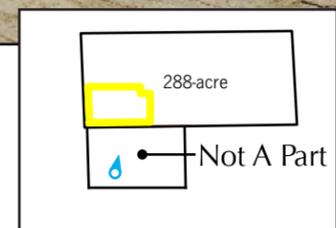
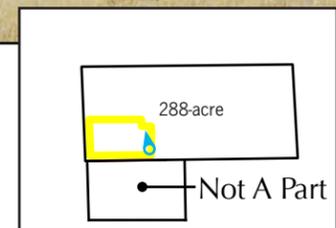


Photo 2: View looking north/northwest across Project site.





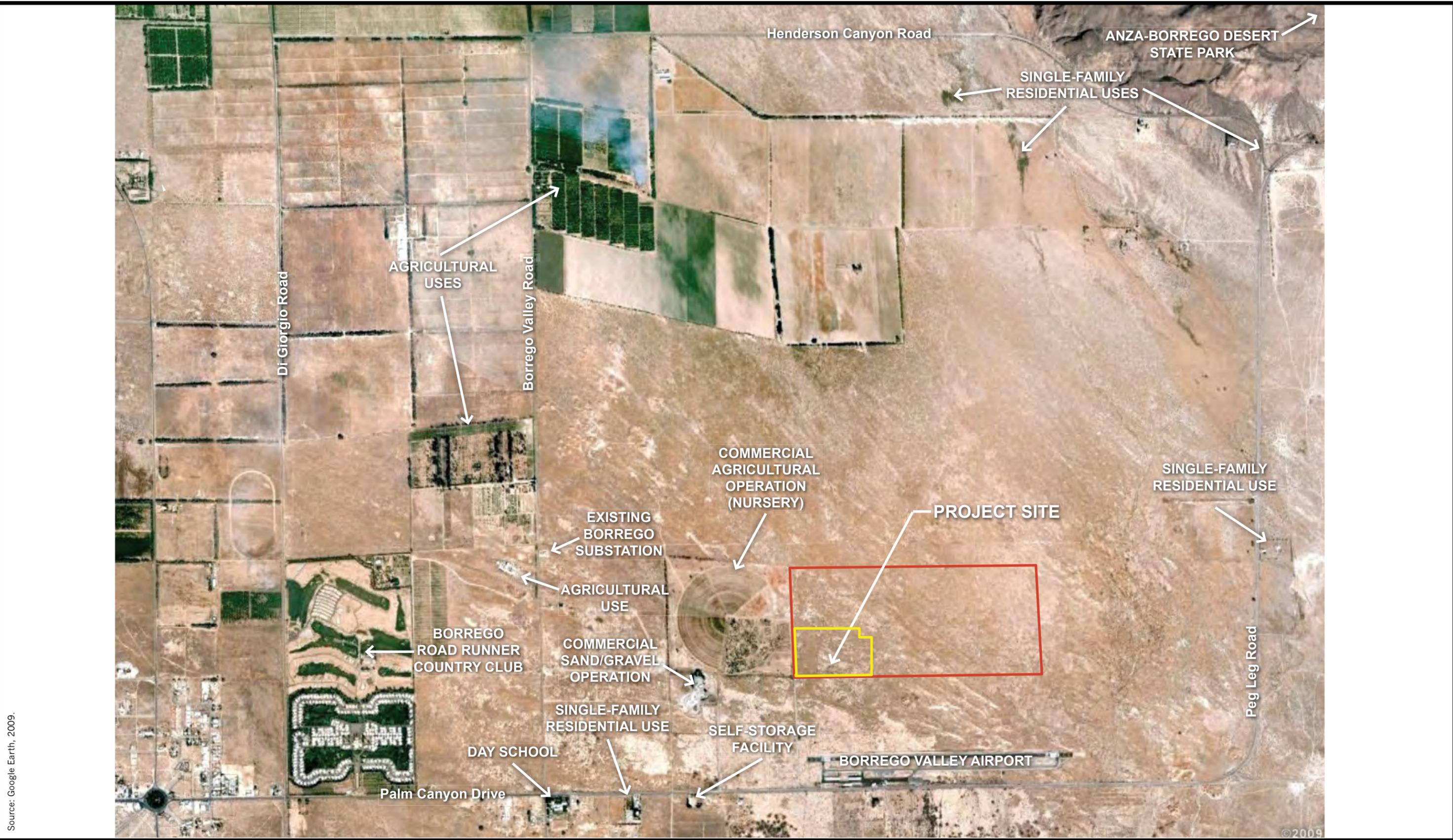
View 1: View looking west from Project site to existing adjacent agricultural operation (nursery).



View 2: View looking northeast/northwest to Project site from Borrego Valley Airport.



View 3: View looking east/southeast to existing Borrego Substation from Borrego Valley Road.





View A: View of existing commercial sand and gravel operation west of Borrego Valley Road.



View B: View looking west to existing communications facilities with adjacent commercial nursery.



View C: View of existing residential use looking south from Palm Canyon Drive.



View D: View of existing storage facility looking south from Palm Canyon Drive.



View E: View looking south from Palm Canyon Drive to existing school (Santa Rosa Community Day School).



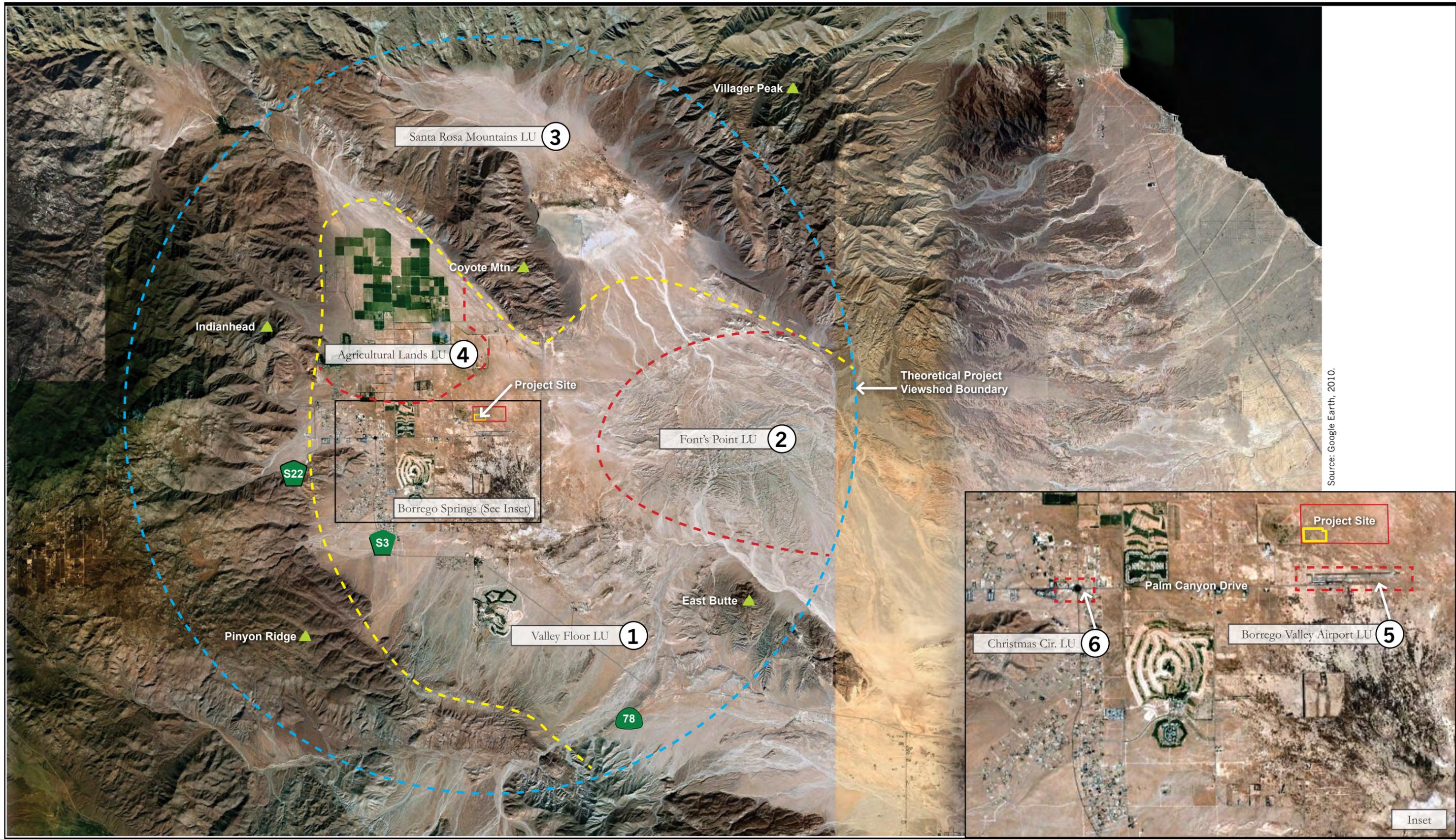
View F: View looking northeast across Palm Canyon Drive to Borrego Valley Airport.



View G: View looking west to existing single-family residential use along Peg Leg Road.



View H: View looking east to existing single-family residential use along Peg Leg Road.



Source: Google Earth, 2010.



LU = Landscape Unit

- Parcel Boundary
- Development Boundary (Solar Field)

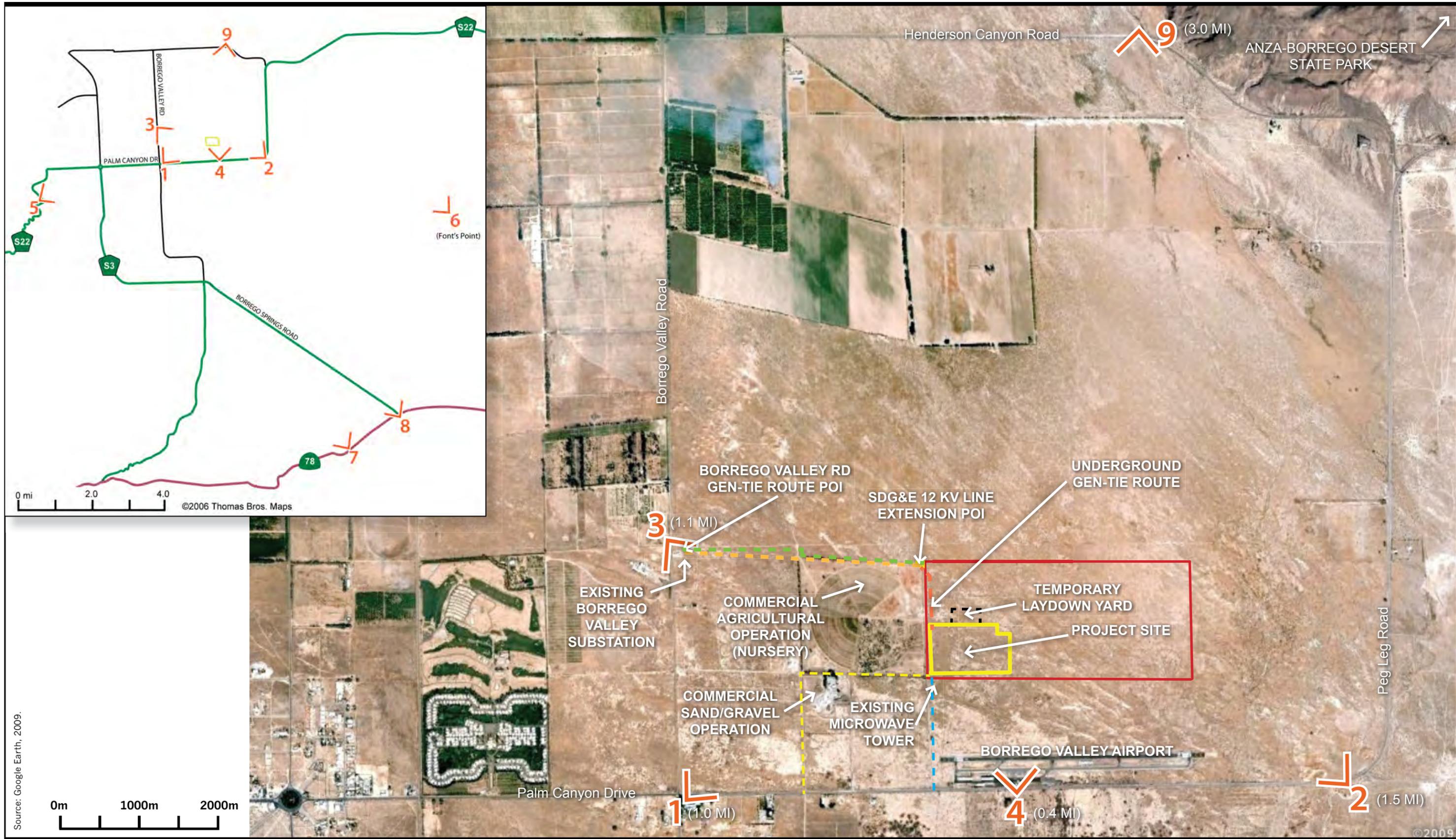


Not to Scale

Viewshed/Landscape Unit Location Map

Desert Green Solar Farm

Figure 9



RBF CONSULTING

SDMac:5388_tabloid_landscape-00.indd

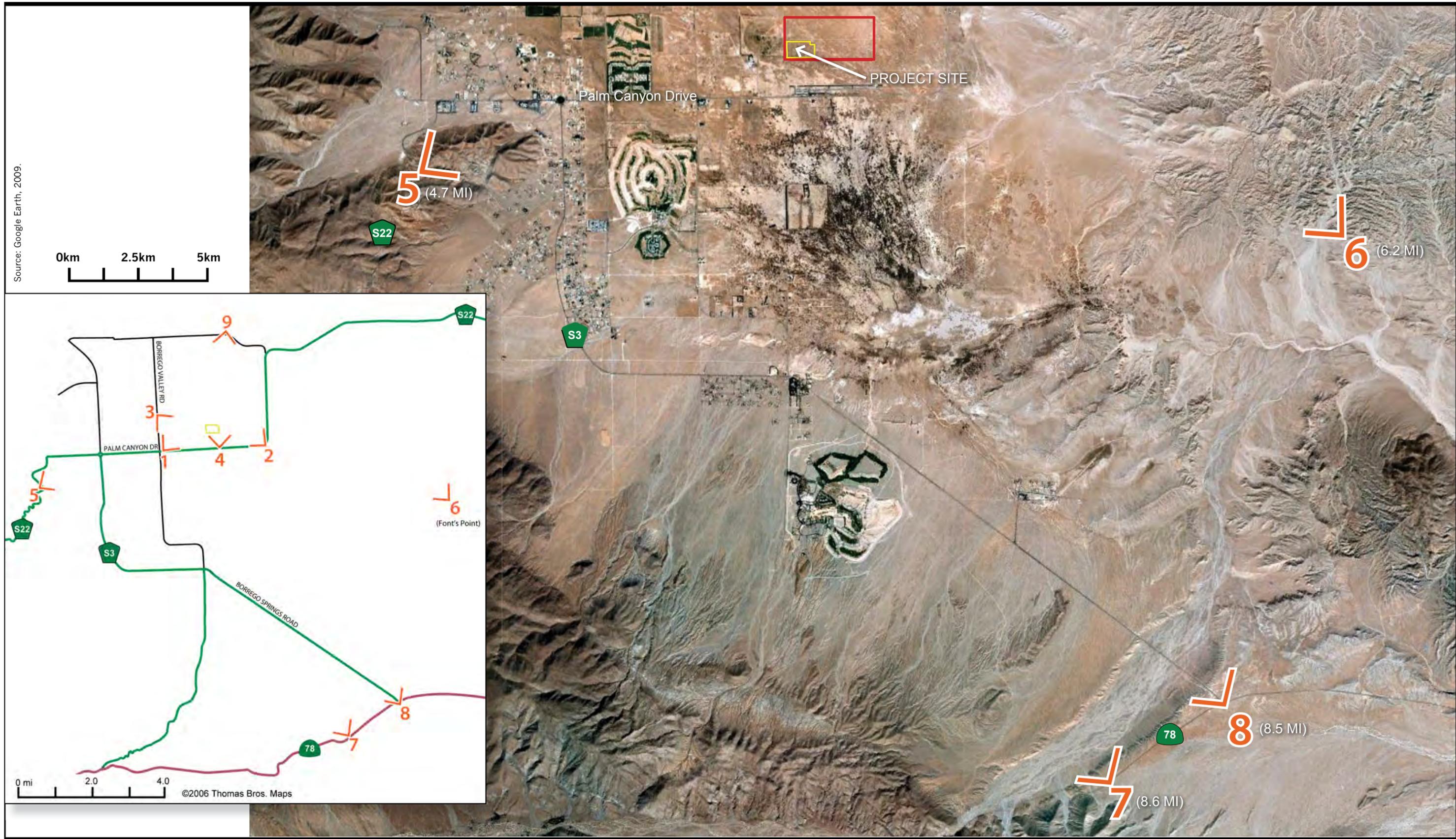
- (X.X MI) Indicates approximate distance to Project Site
- Viewpoint
- Parcel Boundary
- Development Boundary (Solar Field)
- Borrego Valley Road Access/Gen-Tie Route
- SDG&E 12kV Line Extension to Existing Borrego Substation
- Underground Gen-Tie Route
- Temporary Laydown Yard
- Palm Canyon Drive Access Route/West Water Line
- East Water Line
- POI = Point of Interconnection



Key Viewpoint Location Map – Views 1-4 and 9

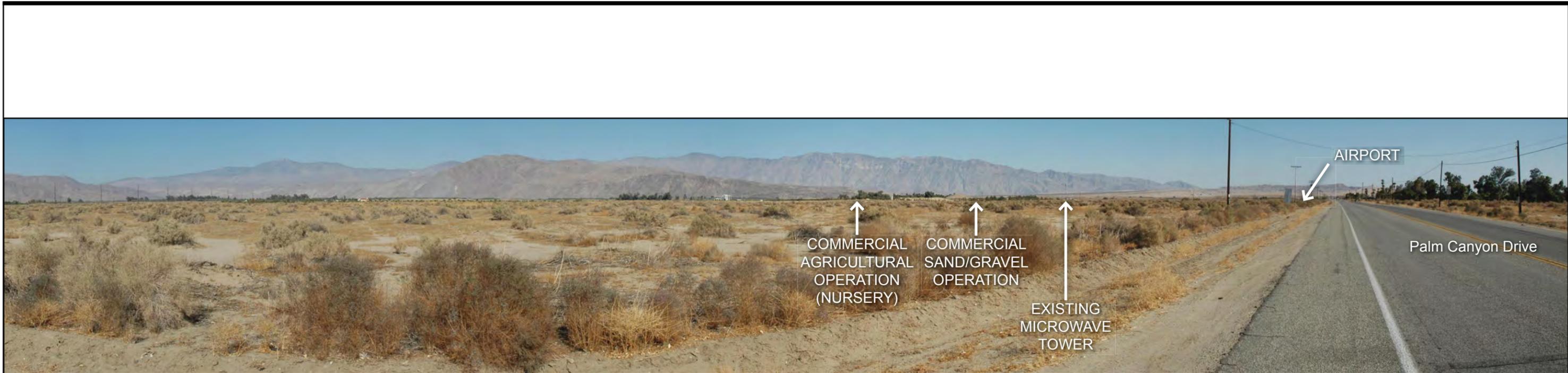
Desert Green Solar Farm

Figure 10A



Key Viewpoint Location Map – Views 5-8

Desert Green Solar Farm



View 1A: Existing View from Palm Canyon Drive Looking Northeast to the Project Site.



View 1B: Proposed View from Palm Canyon Drive Looking Northeast to the Project Site.



View 2A: Existing View from the intersection of Old Springs Road and Palm Canyon Drive Looking Northwest to the Project Site.



View 2B: Proposed View from the intersection of Old Springs Road and Palm Canyon Drive Looking Northwest to the Project Site.



View 3A: Existing View from Borrego Valley Road Looking Southeast to the Project Site from North of the Borrego Valley Substation.



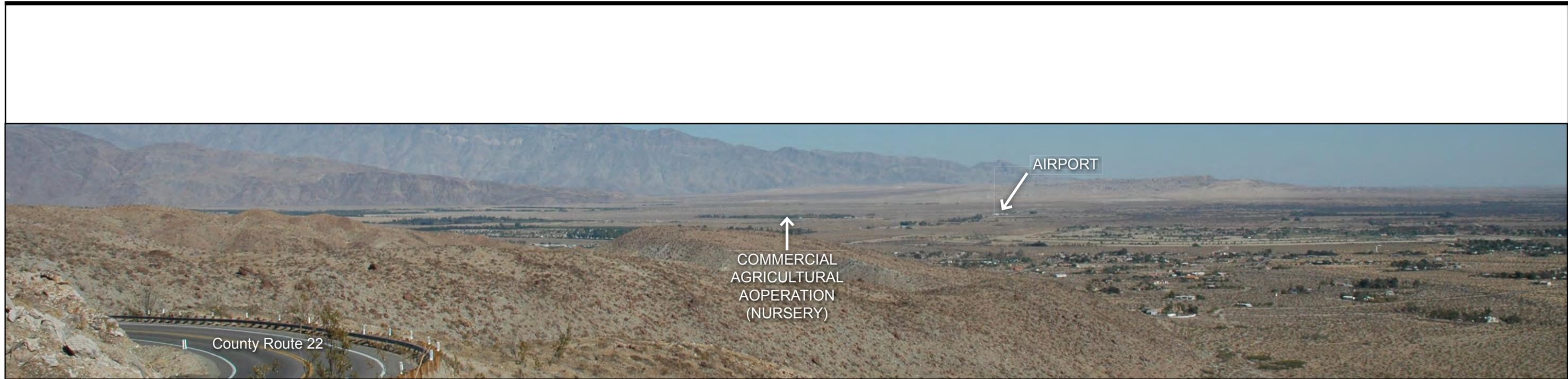
View 3B: Proposed View from Borrego Valley Road Looking Southeast to the Project Site from North of the Borrego Valley Substation.



View 4A Existing View Looking North to the Project Site from the Borrego Valley Airport.



View 4B: Proposed View Looking North to the Project Site from the Borrego Valley Airport.



View 5A: Existing View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).



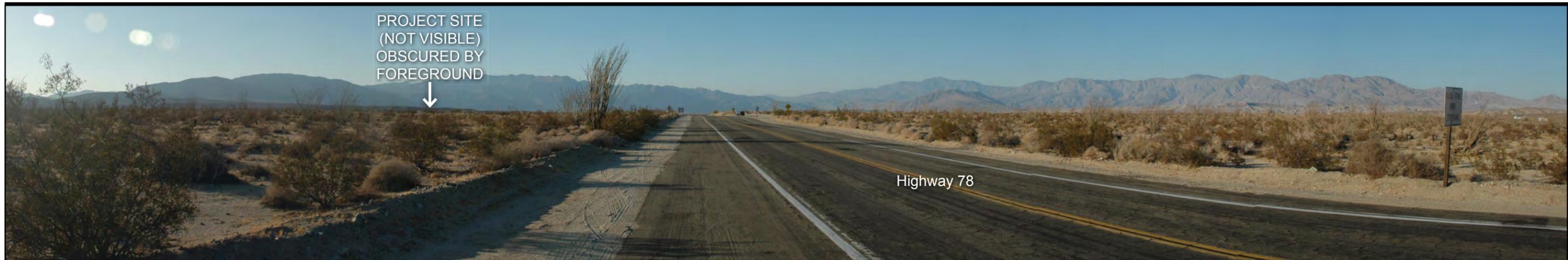
View 5B: Proposed View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).



View 6A: Existing View Looking Northwest to the Project Site from Anza-Borrego Desert State Park / Font's Point.



View 6B: Proposed View Looking Northwest to the Project Site from Anza-Borrego Desert State Park / Font's Point.



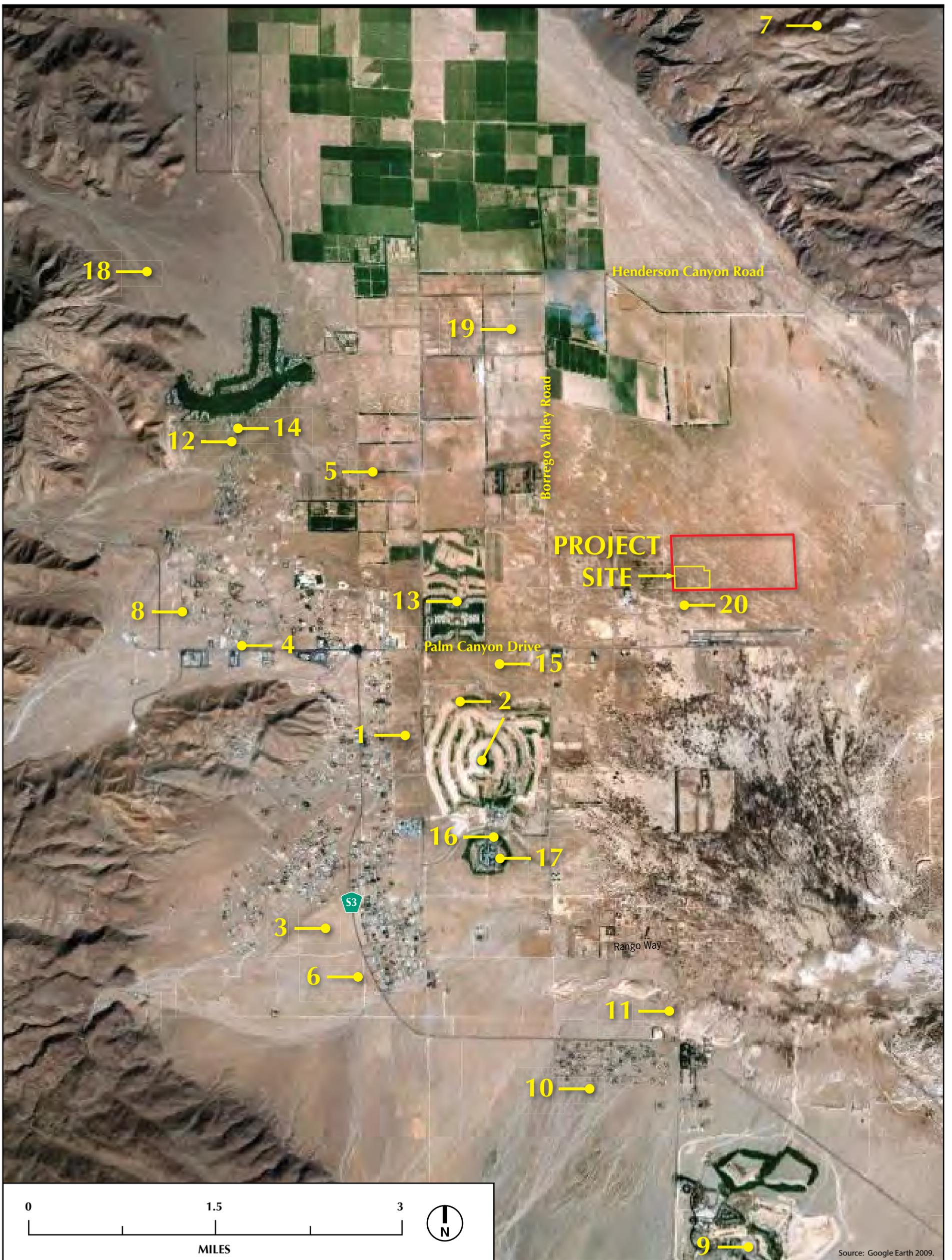
View 7: View to the Site Looking Northwest from Highway 78 (Distance: Approximately 8.6 Miles from Project Site)



View 8: View to the Site Looking Northwest from Highway 78 (Distance: Approximately 8.5 Miles from Project Site)



View 9: View to the Site Looking South from Henderson Canyon Road (Distance: Approximately 3 Miles from Project Site)



1 Borrego Springs Country Club TM	8 Borrego 50 Site Plan TM	14 Rainshadow TPM
2 Borrego Country Club TM	9 Rams Hill MUP Min Dev 79-130-05 MOD/Deviation	15 Borrego 138 TM, MUP
3 Borrego Country Club Estates TM	10 Yaqui Pass GPA, SP, TM, REZ	16 Bole TPM
4 Borrego Springs Senior Condominiums TM	11 Yaqui Pass TM	17 Friestedt TM
5 Desert Diamond TPM	12 Miller TPM 4-Lot	18 Henderson Canyon TPM
6 Bowen Jonas TPM	13 Road Runner Club Pre-App TM	19 U.S. Solar (NRG Borrego Solar One LLC), MUP
7 Borrego Sand and Rock Borrow Pit MUP, RECL PLAN	MUP P99 MOD/Deviation	20 Eurus Energy Solar Project



Existing View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).



Proposed View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).