CHAPTER 1 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

This chapter describes the proposed JVR Energy Park, which would be a solar facility that would generate and store solar energy. For purposes of this Environmental Impact Report (EIR), the JVR Energy Park will be referred to as the "JVR Energy Park" or the "Proposed Project." The Project site is located adjacent to the community of Jacumba Hot Springs in southeastern unincorporated San Diego County (County).

1.1 Project Objectives

Specific objectives for the Proposed Project are as follows:

1. Develop a solar energy project with a rated capacity of up to 90 megawatts (MW) of alternating current (AC) and an energy storage facility that can supply electricity to indirectly reduce the need to emit greenhouse gases caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.
2. Develop a renewable solar energy project that can meet the criteria to achieve the maximum federal solar Investment Tax Credit, which is intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease dependence of the United States on foreign energy supplies.
3. Assist in achieving the state's Renewables Portfolio Standard (RPS), as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.
4. Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing San Diego Gas and Electric (SDG&E) transmission infrastructure.
5. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its greenhouse gas reduction targets, consistent with Assembly Bill 32 and Senate Bill 32.
6. Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.
7. Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creates construction jobs.

1.2 Project Description

The Project site totals approximately 1,356 acres in southeastern San Diego County, within the County's Mountain Empire Subregional Plan area (see Figure 1-1, Project Location). The Proposed Project would be located to the south of Interstate (I) 8, immediately east of the community of Jacumba Hot Springs, and immediately north of the U.S./Mexico international border. The proposed solar facility would cover approximately 643 acres of the Project site (see Figure 1-2, Project Components). A description of the proposed solar facility is provided in this section, including the project components, construction, operation, and decommissioning.

1.2.1 Solar Facility

The Proposed Project is a solar energy generation and storage facility which would produce a rated capacity of up to 90 MW of AC generating capacity. The power produced by the proposed solar facility would be delivered to an existing SDG&E 138 KV transmission line which transects the Project site The Project components are listed below, shown in Figure 1-2, and discussed in greater detail in Section 1.2.1.1. The Figure 1.3 series includes enlarged views of the site plan and shows the location of the Project components. The construction and operation of the Proposed Project are described in Sections 1.2.1.2. Decommissioning activities are discussed in Section 1.2.1.3.

The Proposed Project would include the following primary components:

- Approximately 300,000 photovoltaic (PV) modules mounted on support structures (single-axis solar trackers)
- A 1,000- to 1,500-volt direct current (DC) underground collection system linking the modules to the inverters
- 25 inverter/transformer platforms, located throughout the solar facility, to convert the power generated by the modules into a compatible form for use with the transmission network
- Approximately 5,000 feet of 34.5-kilovolt (kV) underground AC collection system and 50 feet of overhead AC feeders, approximately 30-feet-tall linking the inverters to the on-site collector substation
- An on-site collector substation located within an approximately 27,360 square-foot area (152-foot by 180-foot)
- A 138 kV switchyard within an approximately 140,000 square-foot area (3.2 acres) adjacent to the on-site collector substation to transfer power from the on-site collector substation to the existing SDG&E 138 kV transmission line
- A 138 kV, 220-foot-long 65-foot-high overhead slack span transmission line to connect the on-site collector substation to the switchyard

- Five 138 kV transmission poles ranging in height from 70 to 115 feet, with approximately 1,860 feet overhead transmission lines (tie-in) to loop the switchyard into the existing SDG&E Boulevard – East County transmission line
- A battery energy storage system of up to 90 MW (or 180MWh) comprised of battery storage containers located adjacent to the inverter/transformer pads (up to 3 containers at each location for a total of 75 containers on site)
- Fiber optic line
- Control system
- Meteorological weather stations (five)
- Site access driveways
- Internal access
- Improvements within SDG&E Transmission Corridor
- Perimeter security fencing and signage
- Lighting
- Water tanks for fire protection (six)
- Fuel modification zones (FMZs)

In addition, landscaping along some sections of the perimeter fencing would be installed as mitigation for visual impacts. 1.2.1.1 Project Components

PV Modules

PV modules generate electricity by safely converting the energy of the sun's photons into DC electrons. The Proposed Project would include approximately 300,000 PV modules, which would be installed in rows (arrays). Arrays grouped together are referred to as an array field.

The modules would be mounted on single-axis trackers oriented in the north–south direction. Single-axis tracking systems would employ a motor mechanism that allows the arrays to track the path of the sun (from east to west) throughout the day. The PV modules are uniformly dark in color, non-reflective, and designed to be highly absorptive of all light that strikes their glass surfaces. Figure 1-4 shows a typical PV module and support structure. The PV modules would cover the majority of the area of the proposed solar facility.

The PV modules deployed for use in the Proposed Project would comply with all industry standard quality testing. The PV modules would be electrically connected to the grounding system of the facility in accordance with local codes and regulations. The final PV module selection would be

determined during the Proposed Project's final engineering process. Most PV modules are guaranteed a useful life of 35 years in adverse weather conditions.

The PV modules and tracking systems would be inspected periodically. Electrical components would be tested routinely according to manufacturer's recommendations. In the event that remote monitoring indicates a problem, such as low performance in a section of the array field, a crew would investigate and correct the problem on an as-needed basis. It is anticipated that in-place PV panel washing would occur four times a year. Washing of the PV panels would be undertaken using either a self-propelled powered mechanical system (e.g. MultiOne Solar Panel Washer or Mazaka Solar Cleaner or comparable motorized equipment) or a portable pressure washer towed by a pick-up truck. Washing would occur during daylight hours, so no lighting would be required

PV Modules Support Structures

The solar PV modules would be mounted on support structures that allows them to be properly positioned for maximum capture of the sun's solar energy (refer to Figure 1-4). Each row of PV modules (module arrays) would be a single-axis tracker system that would be oriented along a north-to-south axis. The support structures are typically mounted on metal pipe pile or I-beam foundations 6 to 10 inches in diameter. The beams would be driven into the soil using a pile/vibratory/rotary driving technique similar to that used to install freeway guardrails. Driven pier foundations are a "concrete-free" foundation solution that would result in minimal site disturbance and facilitate site reclamation at the end of the Proposed Project's lifecycle. Most pier foundations would be driven to approximate depths of 10 to 15 feet deep depending upon required embedment depth.

The PV modules, at their highest point, would be approximately 12 feet above the ground surface depending upon the100-year flood elevations within the Project site. The PV module arrays' final elevations from the ground would be determined during the engineering and permit process; however, for the purpose of the analysis in this EIR, maximum height above the graded ground surface would be 12 feet. It is common practice to maintain as low of an elevation profile as possible to reduce potential wind loads on the PV module arrays.

Electrical (DC) Underground Collection System

PV modules would be electrically connected to adjacent modules to form module "strings" using wiring attached to the support structures. PV module strings would be electrically connected to each other via underground wiring. Wire depths would be in accordance with local, state, and federal codes. String wiring terminates at PV module array combiner boxes, which are lockable electrical boxes mounted on or near an array's support structure. Output wires from combiner boxes would be routed along an underground trench system approximately 3-4 feet deep and 1-3 feet wide, including trench and disturbed area, to the inverters and transformer pads.

Inverter/Transformer Platforms

Inverters are a key component of solar PV power-generating facilities because they convert the DC generated by the PV modules into AC that is compatible for use with the transmission network. The medium-voltage transformers step up the AC voltage to collection-level voltage (34.5 kV).

The inverters and medium-voltage transformers would be installed at 25 locations, adjacent to the battery storage containers throughout the solar facility. The locations are shown on Figure 1-2 Project Components and the Figure 1-3 enlarged Site Plan series. At each location, two inverters and one transformer would be installed on a metal platform, referred to as a skid. Each metal skid would be approximately 8 feet wide and 20 feet long. The skids would be mounted above the 100-year flood elevations on a set of piles driven into the ground and covered by an earth or gravel mount that is built up to the top of the skid to provide a working clearance to all access points on the skid per applicable electrical and labor codes. All of this electrical rated equipment would be within a 10-foot-long, 10-foot high and 20-foot long area.

Underground Medium AC Voltage Collection System

At each of the 25 inverter/transformer platform locations, the 34.5 kVA transformer would be connected to an underground medium AC voltage collection system which would carry the power to the on-site collector substation. Trenching for the AC medium voltage electrical collection system and telecommunication lines would consist of trenches up to approximately 3-feet to 4-feet deep and 2-feet to 3-feet 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.

Collector Substation

The Proposed Project includes a collector substation (152-foot by 180-foot (27,360 square feet)) that would be located near the center of the eastern side of the Project site (see Plot Plan to see the Substation and Switchyard). The purpose of the substation is to collect the power from the ACcollector system and convert the voltage from 34.5 kV to 138 kV, as well as to be able to isolateequipment in the event of an electrical short-circuit or for maintenance.

The major components of the proposed collector substation are as follows:

- One 34.5 kV to 138 kV transformer including a concrete pad secondary containment area a few feet high from the ground to contain any mineral oil that could spill out of the inverter per local and state regulations.

- One 138 kV circuit breaker used to protect equipment from an electrical short circuit on the gen-tie.
- The substation would also include a single 34.5 kV circuit breaker used to protect equipment from an electrical short circuit on the collection system, disconnects and bus work to connect and isolate the collector circuits, relays used to detect short circuits, equipment controls, telemetering equipment used to provide system control and data acquisition, voice communication, and the meters used to measure electrical power generated from the Proposed Project. Switching gear and other components would be a maximum of 40 feet in height.
- A 138 kV dead-end structure that would have a maximum height of 65 feet. This structure would have either an A-frame or H-frame design and would be constructed of steel. The dead-end structure is where the power output from the collector substation is delivered to the gen-tie line that goes to the switchyard.
- One Control Enclosure for the Supervisory Control and Data Acquisition (SCADA) system (approximately 34 feet long by 15.5 feet wide and a height of 15 feet).

During operation of the collector substation, operation and maintenance staff would visit the substation periodically for switching and other operation activities. Maintenance trucks would be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance.

Switchyard

The Proposed Project would include a 138 kV switchyard located adjacent to the proposed collector substation (see Plot Plan to see Substation and Switchyard). The size of the switchyard wouldbe approximately 140,000 square feet (3.2 acres). Within this area would be 8-foot high securityfence (445 feet by 300 feet) surrounded by a 5-foot shoulder for grounding protection inside thefence. Drainage facilities would be installed to control runoff and protect the switchyard fromerosion. The 138 kV insulated electrical bus, steel support structures and foundations would beinstalled to support the following electrical equipment:

- 2 138 kV bays in a ring bus configuration
- 3 Gas Insulated Circuit Breakers with 4 current transformers each
- 12 Gang Operated Air Break (GOAB) switches
- 9 98kV surge arrestors
- 9 138kV Single Bushing Potential Transformers
- 2 138kV-240V/120V Station Service Transformers

- Control Enclosure
- Security fencing
- Motion detection lighting

One single-story control enclosure would be used for relays, metering, SCADA information and security and communication equipment. A gas generator may also be installed for use as backup power to the station lights and station service power transformers. The maximum amount of oil required for the station service transformers at the switchyard would be approximately 175 gallons per pot, or 350 gallons total.

The tallest structures in the switchyard would be the 138 kV line and the dead-end structures. The maximum height in the yard would be the approximately 66-foot-high dead-end structure that spans the gen-tie to the collector substation.

After completion of construction of the switchyard, operation of the switchyard facility would be transferred to SDG&E. Conveyance of the property is exempt per County subdivision Ordinance 81.617 (c)(5) (and the Subdivision Map Act (Conveyance is exempt per Section 66412). The switchyard would be unmanned during operation. Monitoring and control functions would be performed remotely from SDG&E's central operations facilities. Accordingly, no new personnel would be required for operation and maintenance. Routine operations would require a single pickup truck visiting the switchyard several times a week for switching, as well as several larger substation construction and maintenance trucks visiting the switchyard several times a year for equipment maintenance. Maintenance activities would include equipment testing, equipment monitoring and repair, and emergency and routine procedures for service continuity and preventive maintenance. Based on operations at similar facilities, routine maintenance is expected to necessitate approximately six trips per year by a two- to four-person crew. Routine operations would require one or two workers in a light utility truck to visit the switchyard on a weekly basis. Typically, one major maintenance inspection would take place annually, requiring approximately 20 personnel for approximately one week.

138 kV Transmission Line Tie-in

The proposed switchyard would be connected into the existing 138 kV SDG&E Boulevard – East County transmission line. The existing transmission line is overhead between the existing SDG&E Boulevard substation and the vicinity of the proposed switchyard. The existing transmission line is underground from vicinity of the switchyard eastward to the existing SDG&E East County (ECO) substation (within Carrizo Gorge Road and Old Highway 80 right-of-way). The proposed overhead transmission line tie-in would require six spans of wire, totaling approximately 1,860-feet, and up to five steel transmission poles. The poles would range from 70 to 115 feet above the

ground's surface. One of the poles would have six davit arms, while the other four poles would have no davit arms. Each pole would have a pole top to accommodate a fiber optic ground wire for lightning protection and critical communication. Temporary construction areas would be cleared and graded at each pole location for a safe working environment and pulling wire.

Battery Energy Storage System

A battery energy storage system with a maximum capacity of up to 90 MW (180 MWh) is proposed to be located throughout the solar facility. This energy storage system would be comprised of battery storage containers located adjacent to the inverter/transformer platforms (up to 3 containers at each location for a total of 75 containers on site). Figure 1-2 and the Figure 1-3 enlarged series shows the location of the battery storage containers throughout the solar facility.

The battery energy storage system would be charged from the energy from the PV modules, which is a DC connected system. The battery energy storage system would use all the same electrical components and conductors that the PV system uses to deliver to the system. No additional equipment would be required. The battery energy storage systems would be inspected on a regular basis and would be monitored by the SCADA System.

The Project proposes to use steel containers (customized Conex or similar, depending on supplier) to hold Lithium-ion batteries. The containers are typically made from 12 to 14-gauge steel and measure approximately 55-feet-long, 19-feet-wide, and 10-feet-high. Each container would be separated from adjacent containers by approximately 10 feet. Figure 1-5 provides an example of a typical steel battery storage container.

The specific battery type proposed for the Project is a Lithium-ion nanophosphate cell. Currently available data indicates that this particular type of Lithium-ion battery has proven to be less vulnerable to fire occurrences than typical Lithium-ion batteries. Lithum-ion nanophosphate batteries include a stable cathode chemistry that substantially reduces the possibility of thermal runaway and provides for reduced reaction from abuse (Sandia National Laboratories 2012).

The proposed battery storage system would include multiple levels of protections against overcharge. Each container would have underground wiring connecting it to a 600 kW DC:DC converter, which would bring the voltage from the batteries in the container up to match the voltage of the PV energy entering into the inverter's DC bus. Each battery container would have a skid-mounted DC:DC converter.

The containers would be situated to enable emergency/fire response access. The containers would be sited with a setback as required by the Fire Protection Plan (Appendix N of this EIR) from off-site areas as a buffer against potential wildfire ignitions. The containers would not be walk in containers, thus the battery storage containers would not be non-habitable structures per the state and local fire codes that are in place at the time a building permit application is submitted to the County.

The proposed batteries and containers also include the following important monitoring and safety components:

- Modular battery racks designed for ease of maintenance
- Integrated heat and fire detection and suppression system
- Explosive gas monitoring
- Exhaust/ventilation systems
- Integrated air conditioning system
- Integrated battery management system

The heat and fire detection system would be linked to an automatic inert gas suppression system within each container. The containers would also have a basic interior containers sprinkler system with several sprinkler heads for coverage and an external dry standpipe for fire fighters to connect and pump water.

Critical information from the battery energy storage system, equipment data from the DC:DC converters and inverters would be monitored by the battery monitoring system inside the containers, at the metering at the inverter cabinets and at the SCADA control system described in more detail below.

The battery management system within each container would track the performance, voltage and current, and state of charge of the batteries. The system would proactively search for changes in performance that could indicate impending battery cell failure, and power down and isolate those battery strings in order to avoid potential failures.

The battery management system would be purchased from vendors who are on track to have their equipment meet the following Underwriters Laboratories (UL) listings: UL 9540, 1741, 1973, 1642, and any other UL standards at the time of the application of the building permit. The National Fire Protection Association (NFPA) has developed a new Standard for the Installation of Energy Storage Systems (NFPA 855). This standard addresses the design, construction, installation, commissioning, operation, maintenance and decommissioning of stationary energy storage systems.

Fiber-Optic Line

To provide for communication with the SCADA system, a fiber-optic cable would be placed underground to connect the substation to the switchyard. Utility interconnection regulations require the installation of a second separate, redundant fiber-optic cable. The redundant fiber-optic cable would also be installed within the Project development footprint and the proposed switchyard boundary.

Control System

The Proposed Project's control system includes a SCADA system and an overall plant control system (PCS). Operation of the solar facility would be monitored through the SCADA system, as described below.

The SCADA system is required for the purpose of communicating and monitoring the solar facility from a remote location. The SCADA system connects the solar facility to the plant operator and the Independent System Operator (ISO). The SCADA system would be monitored remotely, and no on-site operations and maintenance facilities or personnel would be necessary.

The SCADA system would be located in two control enclosures. One enclosure would be located in the on-site collection substation area and the other enclosure would be located within the switchyard area. Each enclosure would be approximately 20 feet long by 10 feet wide, and 10 feet in height. The SCADA system would be comprised of rack-mounted servers and software to allow for the continuous monitoring and control of PV inverters, solar trackers, PV weather monitoring system, substation equipment, battery energy storage system and other equipment throughout the solar facility. 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. The system will also facilitate production forecasting and other reporting requirements for Project stakeholders.

Meteorological Weather Stations

The Proposed Project includes five meteorological weather stations, which would be installed throughout the solar facility. The weather stations would be used to record weather to measure the performance of the solar facility. The parameters recorded would include air temperature, relative humidity, precipitation, air pressure, wind direction and speed, and solar irradiance. Measuring irradiance is important for determining how much power could potentially be harvested from the sun. A pyranometer would be installed at each weather station to measure irradiance.

Four of the meteorological stations would be installed at a place closest to the inverter/transformer platforms to minimize cable runs. The fifth station would be located adjacent to the collector substation. The locations would have no shading obstruction such that the irradiation received by the sensors ("pyranometer") in the station is the same as that received by all the modules in the Proposed Project. Each station would occupy an area of approximately 10 feet long by 7 feet high. The mounting equipment would be made up of steel to ultimately provide height to the actual sensor located at the end of an aluminum (approximately 2-inch diameter) arm about 3 feet long to isolate the equipment from parts that can potentially shade the sensor. The maximum height of the station would be 10 feet. The equipment would be installed on a 5 foot by 5-foot square pad.

The setup would be connected to a datalogger and cellular modem with an approximately 10-meter cable to interface digitally with the SCADA system and the PCS.

Site Access Driveways

Access to the solar facility would be through construction of six driveways that would be located at the following five locations (see Figure 1-2 and Figure 1-3 series):

- Access 1 – Full access driveway along Carrizo Gorge Road (east leg), approximately 1,000 feet southeast of the I-8 interchange;
- Access 2 – Full access driveway along Carrizo Gorge Road (west leg), approximately 1,450 feet southeast of the I-8 interchange;
- Access 3 – Full access driveway along Carrizo Gorge Road (east leg), approximately 2,100 feet southeast of the I-8 interchange;
- Access 4 – Full access driveway along Carrizo Gorge Road (west leg), approximately 2,800 feet southeast of the I-8 interchange; and
- Access 5 – North and south leg full access driveways along Old Highway 80, approximately 1,200 feet east of Campo Street.

Each site entrance would feature a manual swing gate, and a sign with a lighted directory map and contact information. All entrance gates would feature a 'Knox Box' to allow ease of access for emergency service providers. All access to the site has been designed per the County Fire Code. All site entrances would be 24 feet wide and paved, and the access road to the switchyard site off Carrizo Gorge Road would be improved to be 30-feet-wide and paved.

Internal Access

The Proposed Project would include dual-purpose internal fire response access and service access. The internal access is shown in Figure 1-2 and the Figure 1-3 series. The perimeter internal access within the fenced solar facility would be constructed to a minimum improved width of 24 feet. The interior on-site vehicle access would be constructed to a minimum improved width of 20 feet. All internal access would be designed to provide a minimum inner turning radius of 28 feet, would be graded and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. The internal access would allow for two-way access of fire apparatus throughout the solar facility in order to access all of the inverter/transformer pads and battery storage containers.

All internal access surfaces would have a permeable nontoxic soil binding agent in order to reduce fugitive dust and erosion in accordance with County Code Section 87.428, Dust Control Measures, and with San Diego Air Pollution Control District Rule 55, which regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions.

Improvements within SDG&E Transmission Corridor

The SDG&E Transmission Corridor is approximately 600-feet wide and is comprised of three easements. The Proposed Project would include improvements within the SDG&E Transmission Corridor as described below:

- Easement Crossing 1 would be located on the west end of solar facility and would serve to connect two regions of the PV array field to each other across the SDG&E Transmission Corridor. This proposed easement crossing would be comprised of a 24-foot-wide aggregate base driveway. The underground medium voltage collection line would also be installed within this easement crossing.
- Easement Crossing 2 would be located on the east end of the solar facility and would provide access from the east side of Carrizo Gorge Road to the easternmost end of the PV array field. This proposed easement crossing would be comprised of a 24-foot wide aggregate base driveway and an earthen road-side diversion swale. This new crossing would provide access to an existing SDG&E transmission tower in the southernmost 200-foot-wide easement; it would replace the existing access. The existing access to the tower is proposed to be relinquished. The diversion swale is proposed along the southwest side of the new access to protect the access and convey upstream runoff. A low water crossing or culvert would be installed to manage stormwater runoff.
- Easement Encroachment 3 would be needed to interconnect the overhead power lines from the switchyard to the existing SDG&E 138 kV transmission line.

Security Fencing and Signage

The approximately 643-acre solar facility would be fenced along the entire facility boundary (see Figure 1-2 and Figure 1-3 series) for security. The fencing would meet National Electrical Safety Code requirements for protective arrangements in electric supply stations. Fencing would be 7 feet in height total, with a 6-foot-high chain-link perimeter fence and 1 foot of three strands of barbed wire along the top. Signage in Spanish and English for electrical safety would be placed along the perimeter of the solar facility on the fence, warning the public of the high voltage and the need to keep out.

Lighting

Motion sensor lights would be installed at all site access driveway entrances, at the switchyard, and at the substation. These lights would only be used if motion is detected. No other lighting is proposed within the solar facility.

All lighting would have bulbs that do not exceed 100 watts, and all lights would be shielded, directed downward, and would comply with the County of San Diego Light Pollution Code, also known as the Dark Sky Ordinance, Section 51.201 et seq. Additionally, lighting for the Proposed Project would be designed in accordance with the San Diego County Zoning Ordinance, Performance Standards Section 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions.

Water Tanks (Fire Protection)

The Proposed Project would install have six 10,000-gallon water tanks with fire department connections available, as shown on Figure 2.12-5 in Section 2.12 Wildfire of this EIR. Water would be stored in aboveground tanks complying with the San Diego California Fire Agency requirements and with National Fire Protection Act 22, Private Fire Protection Water Tanks. A procedure for ongoing inspection, maintenance, and filling of tanks would be in place. The tank and fire engine connections would be located on the side of the access driveways. The width of the driveway at the water tank location would be at least 18 feet (travel width), plus an additional 10-foot width, for a distance of 50 feet, to allow for fire engines to park and connect to the tank while leaving the road open. The tanks would be labeled “Fire Water: 10,000 gallons” using reflective paint.

Fuel Modification Zones

A minimum 30 feet wide fuel modification zone (FMZ) would be provided along the perimeter of the solar facility between the PV modules and the off-site wildland fuels. This area would include contiguous fuel modification from the perimeter fence inward and would include the perimeter fire access road. Additionally, a minimum 100-foot-wide FMZ would surround the proposed collector substation pad area and switchyard.

Landscaping

Landscaping would be installed to prove visual screening of the PV modules and other Project components as mitigation for visual impacts. The landscaping would be installed on the outside of the perimeter fencing as shown on Figure 1-2 and Figure 1-3 series. These locations include along Old Highway 80 on north and south sides of highway; along the western boundary adjacent to Jacumba Hot Springs, and along the east side of Carrizo Gorge road.

Operational Water Demand

Panel washing would occur approximately four times per year. The operational water demand for panel washing is estimated to be 2.6 acre-feet per year (afy). It should be noted that actual water use during operation for panel washing may be considerably less based on documented water demand for the nearby active Jacumba Solar project. The estimated annual operational water demand for irrigation of the landscape screening is approximately 8.4 afy. Therefore, the total operational water demand would be approximately 11 afy.

1.2.1.2 Construction

Construction of the Project is anticipated to occur over approximately 13 months and would consist of several activities, which are described below. Table 1-1, Proposed Project Construction Duration, Equipment, and Workers by Activity identifies the proposed duration, workers and equipment likely to be associated with each construction activity of the Proposed Project. Construction of the Proposed Project would include the following construction phases:

- Site Mobilization
- Demolition of Dairy and Ranch Structures
- Site Preparation (including access driveways and staging areas), Grading, and Stormwater Protections
- Fence Installation
- Landscaping Installation
- Substation, Switchyard and Meteorological Station Installation
- Pile Driving
- Tracker and PV Module Installation
- DC Electrical
- Underground Medium AC Voltage Electrical
- Inverter/Transformer Platform Installation
- Battery Energy Storage System Installation
- Commissioning

Several construction activities would occur simultaneously during construction as outlined in Table 1-1, Proposed Project Construction Duration, Equipment, and Workers by Activity. The total construction duration of the Solar Facility would be approximately 13 months.

Site Mobilization

Construction of the Proposed Project requires mobilizing the 643-acre site by planning out all parking and construction staging areas and bringing in construction equipment.

Demolition of Dairy and Ranch Structures

The Proposed Project includes demolition of existing structures on the Project site. The structures proposed to be demolished are associated with prior dairy and agricultural operations that are located within one parcel (APN 661-060-12) within the Project site. Asbestos Building Inspection and Lead-Based Paint Testing (Appendix H) was conducted for existing structures and it was determined that some structures contained asbestos and/or lead. Previously identified asbestos and lead-based paint would be removed by a certified abatement contractor in accordance with CalOSHA, California Department of Public Health, and San Diego County Air Pollution Control District. Therefore, these materials would be abated in accordance with federal, state, and local regulations prior to demolition or construction.

Site Preparation, Grading and Stormwater Protection

Construction of the Proposed Project would involve clearing and grubbing of the existing vegetation within the 643-acre development footprint. Grading would be required throughout the development footprint. Grading is expected to be balanced on site, with approximately 264,000 cubic yards of cut redistributed across the site.

The Proposed Project would implement the following measures in compliance with the Grading Ordinance (County Code Section 87.428) to minimize fugitive dust (PM_{10}) during the construction phase of the Proposed Project. These measures would include:

- The applicant would apply water three times per day or as necessary depending on weather conditions to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. These measures would be applied to all active construction areas, unpaved access driveways, parking areas and staging areas as necessary.
- Sweepers and water trucks will be used to control dust and debris at public street access points.
- Internal construction driveways will be stabilized by paving, chip sealing, or nontoxic soil binders after rough grading.
- Exposed stockpiles (e.g., dirt, sand) will be covered and/or watered or stabilized with nontoxic soil binders, tarps, fencing, or other suppression methods as needed to control emissions.
- Traffic speeds on unpaved driveways will be limited to 15 mph.

- All haul and dump trucks entering or leaving the site with soil or base material will maintain at least 2 feet of freeboard, or cover loads of all haul and dump trucks securely.
- Disturbed areas will be reseeded with a native plant hydroseed mix as soon as possible after disturbance.

Installation of Underground Medium Voltage Collection System

Trenching is required for installation of the AC medium voltage underground electrical collection system and telecommunication lines. Trenches would be approximately 3 to 4-feet-deep and 2 to 3 feet wide. The trenches would be filled with base materials above and below the conductors and communication lines to ensure adequate thermal conductivity and electrical installation characteristics. The topsoil from trench excavation would be set aside the trench before the trench is backfilled and would ultimately comprise the uppermost layer of the trench. Excess material from the foundation and trench excavations would be used for site leveling. Where possible, trenching would be located beneath driveways and roads to minimize disturbance.

PV System Installation

The PV system installation includes foundations, racking, module assembly, and DC wiring as follows:

- Foundations: The foundations are H piles that would be driven into the soil using a pile/vibratory/rotary driving technique like that used to install freeway guardrails. The pile foundations would be driven to approximate depths of 10 to 15 feet deep depending upon required embedment depth. The spacing of the piles is determined by the ultimate ground coverage ratio that are surveyed and pined to exact location.
- Racking: The racking is assembled on top of the H piles manually and tightened and adjusted with handheld electric ratchet guns.
- Module Assembly: The modules are manually lifted and adjusted on top of the racking.
- Above Ground DC Wiring: The modules are strung together and manually connected with twist connectors.

Installation of Battery Energy Storage System

The battery energy storage installation would be completed in four phases:

- Foundation: The foundations are driven H piles driven to the embedment depth required by the manufacturer.
- Containers: The storage containers and integration systems are delivered to the site by truck and are lifted off the truck by a forklift or crane.

- Battery Placement: The battery packs are delivered separately from the containers and integrated into the system onsite.
- Wiring and Commissioning: The fully integrated container is then wired into the inverter/ transformer platforms.

Construction Personnel, Traffic, and Equipment

It is conservatively estimated that during the peak construction of the Proposed Project, up to 500 workers would be on the Project site. It is anticipated that workers would arrive and depart between 6:00 a.m. and 7:00 p.m. Monday through Saturday. It is also anticipated that 30 heavy construction and/or delivery vehicles would travel daily to/from the Project site during construction.

Approximately 462 workers and 22 trucks are anticipated for the construction of the solar facility during peak construction operations with the remaining 38 workers and 8 trucks working at the switchyard site. It is assumed that 65% of the workers (325) would arrive during the a.m. peak hour and depart during the p.m. peak hour. It is also assumed that 30% of the 500 construction workers would carpool to/from the Project site, which is conservative given the long distances between the Project site and populated areas in San Diego County and Imperial County. Additionally, 15% of the worker traffic (64) is assumed to make an additional trip to/from the Project site outside of the AM and PM peak hours. This accounts for workers leaving for lunch and additional miscellaneous trips that are to be expected. The 15% is expected to be conservative for a construction site in an undeveloped area since travel times would discourage these additional trips. A total of 30 heavy construction/delivery vehicles are anticipated to travel to/from the Project site daily and are spread out throughout the day (15% assumed during the peak hours).

Based upon these assumptions, it is estimated that during construction the Project would generate a total of 1,158 daily trips, with 320 (297 in, 23 out) trips during the a.m. peak hour and 320 (23 in, 297 out) during the p.m. peak hour. During peak construction operations and are broken down below.

- Solar facility– 1,036 daily trips, with 292 (270 in, 22 out) a.m. peak hour trips and 292 (22 in, 270 out) p.m. peak hour trips;
- Switchyard – 122 daily trips, with 28 (27 in, 1 out) a.m. peak hour trips and 28 (1 in, 27 out) p.m. peak hour trips.

Construction of the Proposed Project would result in a temporary increase in traffic on Carrizo Gorge Road and Old Highway 80. No road closures are anticipated during Project construction. A County-required Traffic Control Plan to provide safe and efficient traffic flow in the area and on the Project site would be prepared prior to construction. 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).

Water Use During Construction

The total estimated water demand during construction is 140 acre-feet. Water during construction would be from on-site groundwater wells.

The Proposed Project would require approximately 358,436 gallons per day (approximately 250 gallons per minute) from on-site groundwater for approximately the first 6 weeks during grading activities. It is anticipated that the existing wells on site would have capacity to supply this water. Following grading, water demand would be lower during construction of solar facility. Total construction water demand would be approximately 140 acre-feet.

During construction, water would also be used to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. Water would also be used to mix concrete to be used for the substation, energy storage facility foundations, and other concrete pads.

1.2.1.3 Decommissioning

This section describes the dismantling of the solar facility, recycling, and removal surety. All Project components would be decommissioned except the switchyard and connection to the SDG&E transmission line which would be owned and operated by SDG&E. All decommissioning would occur within the development footprint and disturbance limits of the Proposed Project.

Given the lifespan of the solar facility equipment (35 years), the EIR analysis assumes a conservative 35-year life span for the Proposed Project at which time it will be decommissioned as described below. The decommissioning of the solar facility would last approximately 10 months.

The use of the land would have to return to a use that is consistent with the County of San Diego Zoning Ordinance at the time of dismantling. If a new use is not proposed, the decommissioning would include removal of all ground-level components and preparing the site with a compatible hydroseed mix.

Dismantling

The aboveground (detachable) equipment and structures would be disassembled and removed from the site. Detachable elements include all PV modules and support structures, battery storage units, inverters, transformers, and associated controllers. Removal of the fencing, substation, and aboveground conductors on the transmission facilities would also be implemented. Most of these materials can be recycled or reclaimed. Remaining materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of offsite, consistent with the County of

San Diego Construction Demolition and Debris Management Plan (County Ordinance 68.508-68.518). Underground collector and transmission components would be abandoned in place and cut off down to three feet below grade.

It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction because there would be no need to use water for concrete mixing or to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. Water demand for decommissioning dust abatement would be approximately 40 af of water. Additional equipment washing and modest compaction needs, if necessary, would require a further approximately 10 af. The water for equipment washing and modest compaction would be used over approximately 3 months. The total water demand estimated for decommissioning is approximately 50 af over a 10-month period for dust abatement, equipment washing and compaction.

Recycling

The majority of the components of the proposed solar facility are made of materials that can be readily recycled because the components of the PV modules can be broken down. Generally, if the PV panels can no longer be used in a solar facility, the aluminum can be resold, and the glass can be recycled. Any hazardous components of the PV panels would be removed and properly disposed of offsite prior to recycling. Other components of the solar facilities, such as the rack structures and mechanical assemblies, can be recycled as they are made from galvanized steel. Equipment such as inverters, transformers, and switchgear can be either reused or their components recycled. Equipment pads made from concrete can be crushed and recycled. The electrical wiring is made from copper and/or aluminum and can be reused or recycled as well. All recycling would be in accordance with state and County regulations.

Removal Surety

The final decommissioning plan(s) that would be provided within one year of issuance of the building permits for the Proposed Project would comply with Section 6954.b.3 (d) of the County of San Diego Zoning Ordinance (County of San Diego 2014) for removal surety as follows:

> The operator shall provide a security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to PDS [Planning & Development Services] prior to building permit issuance. Once the Solar Energy System has been removed from the property pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System.

Financial responsibility for decommissioning would be an obligation of the owner of the solar facility.

1.2.1.5 Fire Protection

There are several fire stations within the Project area; these include San Diego County Fire Authority (SDCFA), California Department of Forestry and Fire Protection (CAL FIRE), and U.S. Forest Service fire stations. The Jacumba Hot Springs area is serviced by the SDCFA's Jacumba Fire Station (Station 43). Fire emergencies that may occur at the Project site would be primarily responded to by SDCFA's Jacumba Fire Station (Station 43), which is staffed by both volunteer reserve and career firefighters. Additional response would be available from SDCFA's Boulevard and Campo Fire Stations (Stations 47 and 46, respectively), and SDCFA's Lake Morena Fire Station (Station 42). Other fire protection aid would be provided by the CAL FIRE Campo Station, as well as from mutual aid resources from throughout San Diego County and the state, when necessary. Clearing and grubbing of approximately 643 acres would be required for construction and access to the Project site. Consistent with County requirements for discretionary approvals for projects in wildland/urban interface areas, a Fire Protection Plan (FPP) would be prepared for the Proposed Project.

1.2.1.6 Project Design Features

The applicant has incorporated Project Design Features (PDFs) into the Proposed Project to reduce or avoid the potential for environmental effects. The following are a list of PDFs that are included in the Proposed Project. These PDFs would be made conditions of approval for the Proposed Project to ensure these features are implemented.

PDF HYD-1 Prior to approval of final design plans, the County DPW shall verify that all components located within the 100 year floodplain shall comply with the County of San Diego Flood Damage Prevention Ordinance, County Hydrology Manual, and County Hydraulic Design Manual, which includes elevating all solar panels at maximum tilt, inverter/transformer platforms, battery storage containers, and all electrical components one (1) foot above base flood elevation.

PDF-HYD-2 **Groundwater Monitoring and Mitigation Plan**. During groundwater extraction for the Proposed Project's construction and operation, the applicant shall implement the groundwater production and groundwater-level monitoring, groundwater mitigation criteria and, if necessary, the groundwater-habitat monitoring procedures outlined in the Groundwater Monitoring and Mitigation Plan that has been prepared for the Proposed Project.

PDF-TR-1 **Traffic Control Plan.** Prior to obtaining a grading permit from the County of San Diego, the applicant shall implement a construction Traffic Control Plan (TCP) that includes the following measures:

Temporary traffic control devices in accordance with the California Department of Transportation's (Caltrans) California Manual on Uniform Traffic Control Device to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic control flaggers, and any additional measures required for the sole convenience of safely passing non-construction traffic (including transit, bicyclists and pedestrians) through and around construction areas.

Coordination with Caltrans to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.

Notification of the California Highway Patrol, if necessary, to facilitate slowing freeway traffic to ensure safe access for motorists.

Coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction.

Employment of a contract transport company that would be responsible for surveying the route to determine how turns on existing roads would be accomplished and ensuring that is reflected in the TCP.

Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities.

PDF-TR-2 **Preparation of Construction Notification Plan.** Forty-five days prior to construction, the project applicant would prepare and submit a construction notification plan to the appropriate land use jurisdiction agency for approval. The construction notification plan would identify the procedures that would be used to inform property owners of the location and duration of construction, identify approvals that would be needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The construction notification plan would address at a minimum two of the following components

Public notice mailer

A public notice mailer would be prepared and mailed no fewer than 15 days prior to construction. The notice would identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice would state the type of construction activities that would be conducted and the location and duration of construction, including all helicopter activities. The project applicant or construction contractor would mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice would be prepared and distributed.

Public liaison person and toll-free information hotline

The project applicant would identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person would be included in notices distributed to the public. The project applicants would also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls would be addressed in the construction notification plan.

PDF-TR-3 **Notify property owners and provide access.** To facilitate access to properties that might be obstructed by construction activities, the project applicant would notify property owners and tenants at least 24 hours in advance of construction activities and would provide alternative access if required.

1.2.2 Technical, Economic, and Environmental Characteristics

The following provides a discussion of the Proposed Project's technical, economic, and environmental characteristics.

1.2.2.1 Technical Considerations

The Proposed Project's PV technology employs single-axis trackers oriented in the north–south direction. Single-axis tracking systems would employ a motor mechanism that would allow the arrays to track the path of the Sun (from east to west) throughout the day. The motors would be installed after the horizontal cross-members are in place. In the morning, the panels would face east. Throughout the day, the panels would slowly move to the upright position at noon, and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

Depending on the type of technology (PV modules) used, the PV panels would measure between 4 and 7 feet in length, and the total height of the panel system measured from ground surface would be approximately 12 feet. The Proposed Project's rack dimensions are approximately 10 feet top to bottom edge with a tracking range of motion of 65 degrees. Each rack would hold an array of panels approximately 300 feet in length. The array would have approximately 2 feet of clearance from grade and have a peak height at full tilt of approximately 12 feet at the highest edge. Each rack would be mounted on a tubular or beam-shaped post. The rack rows would be spaced at approximately 18 to 22 feet center-to-center with a minimum of 10 feet of clearance between rack edges. A series of north-to-south (spaced approximately every 1,500 to 3,600 feet) and east-to-west (spaced approximately every 600 to 1,000 feet) running all-weather fire access driveways, of minimum 20-foot width interior to the site and 24-foot width around the perimeter of the site, would be provided for maintenance and fire access.

1.2.3.2 Economic Considerations

The Proposed Project would help facilitate the development of a local renewable energy supply, thereby improving the reliability of electrical energy production in the San Diego County and other counties by increasing local sources of electricity rather than increasing electrical energy import. The Proposed Project would also assist the State of California in achieving the state's 50% RPS by 2026 and 60% RPS by 2030, which were put in place by Senate Bill 100. It would further assist the state in meeting a renewable energy target of 100% of total electricity sold to retail customers by 2045, as put in place by Senate Bill 100. The Proposed Project would also provide economic benefits to the region from construction of the Proposed Project.

1.2.3.3 Environmental Considerations

Solar energy can provide a number of environmental benefits, such as reductions in air and water pollution and GHG emissions as compared to other sources of energy. However, solar technology, like other energy technologies, has environmental impacts.

Aesthetics

Impacts associated with visual character or quality are often a factor with solar energy projects due to the contrast with existing visual elements of a neighborhood or community, such as size, massing, coverage, and scale. Installation of the Proposed Project facilities would result in altering the openness of the landscape and quality of existing views. Additionally, the Proposed Project would alter views from surrounding public lands, I-8, and Old Highway 80. Section 2.1, Aesthetics, of this EIR evaluates the potential changes to the existing aesthetic and visual characteristics of the Project area.

Air Quality

During the Proposed Project construction, diesel particulate matter emissions would be emitted from construction equipment and heavy-duty trucks. In addition, the Proposed Project's construction traffic volumes may expose sensitive receptors to localized high concentrations of carbon monoxide that would exceed the County's screening thresholds. The Project's construction activities could also result in Toxic Air Contaminants (TACs) that could exceed the County's thresholds for cancer risk. Section 2.2, Aesthetics, of this EIR evaluates the potential impacts to air quality. and provides mitigation to reduce potential significant impacts.

Biological Resources

Resources within the Proposed Project site include special status plant and wildlife species, riparian and other sensitive habitats, jurisdictional aquatic resources, and wildlife movement corridors. The Proposed Project construction and operation would potentially impact these biological resources. Section 2.3, Biological Resources of this EIR analyzes potential impacts relating to biological resources resulting from the Proposed Project.

Cultural Resources and Tribal Cultural Resources

Construction and decommissioning activities for the Proposed Project could affect cultural resources and tribal cultural resources within the Project site. The Proposed Project design was adjusted to avoid impacts to significant archaeological sites; however, there is a potential for impacts to previously undiscovered cultural resources and human remains within the Project site. Section 2.4 and 2.11 of this EIR evaluate the potential impacts to cultural resources and tribal cultural resources, respectively.

Hydrology and Water Quality

Construction and operational activities for the Proposed Project would potentially impact hydrology, including impeding or redirecting flood flows. Section 2.7, Hydrology and Water Quality of this EIR analyzes potential impacts relating to biological resources resulting from the Proposed Project.

Mineral Resources

The Project does not include any mapped mineral zones; however, a portion of the site is partially underlain by quaternary alluvium. The proposed solar facility would be decommissioned and is therefore considered an interim use. The switchyard and biological open space easements required for mitigation would be permanent uses, which could impact potential mineral resources. Section 2.8, Mineral Resources of this EIR analyzes potential impacts relating to mineral resource resulting from the Proposed Project.

Noise

Construction and operational noise may generate noise levels in exceedance of applicable standards depending on the phasing of the project construction, the layout and type of equipment installed, and panel washing methods. Section 2.9, Noise of this EIR analyzes potential noise impacts resulting from the Proposed Project.

Wildfire

Areas of the Project site are located in High and Very High Fire Hazard Severity Zones. The construction and operation of the Proposed Project has the potential to increase fire hazards. Section 2.12, Wildfire of this EIR analyzes potential wildfire hazard impacts resulting from the Proposed Project.

1.3 Project Location

The Proposed Project would be located on a privately owned 1,356-acre site in southeastern San Diego County (see Figure 1-1, Project Location). The Project site lies within the Jacumba Subregional Group Area within the Mountain Empire Subregion area of the unincorporated County. The Project site is located south of I-8, east of the unincorporated community of Jacumba Hot Springs, and immediately north of the U.S./Mexico border. Access to the Project site is provided by Old Highway 80 and Carrizo Gorge Road. The Project site consists of 24 parcels, which are listed in Table 1-2, Assessor's Parcel Numbers, Existing General Plan Land Use Designations, and Existing Zoning. The location of the parcels is shown in Figure 1-1, Project Location. The Project site includes right-of-way easements for Old Highway 80, SDG&E easements, and an easement for the San Diego and Arizona Eastern Railway.

1.4 Environmental Setting

The baseline for the Project is established by the physical condition that exists at the time the Notice if Preparation (NOP) for the EIR was published, which occurred on March 7, 2019. The environmental setting is summarized below and described in greater detail for each environmental issue at the beginning of each section in Chapter 2 and 3 of this EIR.

A portion of the Project site on the central and southern areas have historically been used for dairy and agricultural operations. Although a portion was used for farming, the Project site is not currently under cultivation and has been fallow since 2014. The Project site contains 11 vegetation communities and/or land covers, including 8 sensitive vegetation communities.

The 1,356-acre Project site varies from relatively level land in the central and southern portions of the site to moderately to steeply sloping hillsides along the western and eastern margins. Elevations

range from approximately 2,745 feet above mean sea level in the lower, northern portion of the Project site to 3,365 feet above mean sea level at the top of Round Mountain in the northwestern portion of the Project site. The Project site is sparsely developed with structures located in the southeast associated with prior dairy and ranching operations and unpaved roads. A section of the San Diego and Arizona Eastern Railway that is no longer in service and a tributary to Carrizo Creek are present along the west portion of the Project site.

Regional access to the Project site is provided by I-8, located to the north, and by Old Highway 80 which traverses the southern portion of the Project site. Both I-8 and Old Highway 80 are designated as County Scenic Highways within this area. The Jacumba Airport is located immediately to the east of the southern portion of the Project site. The southern boundary of the Project site is located along the U.S/Mexico border.

Public land in the surrounding area includes Anza Borrego State Park, located adjacent to the Project site to the west. Federal lands managed by the Bureau of Land Management (BLM) are also located within the surrounding area.

The unincorporated community of Jacumba Hot Springs is located adjacent to the proposed solar facility, to the southwest of the Project site. The 2010 census population was 561. The community includes residential and commercial uses, including a hot springs resort. Jacumba Hot Springs and the surrounding area are totally dependent on groundwater for supply. The Jacumba Community Services District provides groundwater to the village area.

The Jacumba Airport is located to the east of the southern portion of the Project site. The Project site is located within the Airport Influence Area of the Jacumba Airport, specifically within Zone 1 – Zone 6 of the Airport's Airport Land Use Compatibility Plan.

The Project site includes an easement for the San Diego and Arizona Eastern Railway. The railroad's route originates in San Diego and terminates in El Centro. The segment within the Project site is currently not in operation.

Three electric transmission lines transect the northern portion of the Project site, as shown in Figure 1-2. These existing transmission lines include the SDG&E 138kV transmission line, the Sunrise Powerlink, and the Southwest Powerlink. The Proposed Project's switchyard would loop into the existing 138kV line. The Sunrise Powerlink and the Southwest Powerlink are 500 kV transmission lines supported by 150-foot tall steel lattice structures.

1.5 Intended Uses of the EIR

This document is subject to Section 21167.6.2 of the Public Resources Code, which requires the record of proceedings for this project to be prepared concurrently with the administrative process;

documents prepared by, or submitted to, the lead agency to be posted on the lead agency's internet web site; and the lead agency to encourage written comments on the project to be submitted to the lead agency in a readily accessible electronic format.

This EIR is an informational document that will inform public agency decision makers and the public generally about the significant environmental effects of the Proposed Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Proposed Project. This EIR has been prepared in accordance with the requirements of the County of San Diego Environmental Impact Report Format and General Content Requirements (County of San Diego 2006), the California Environmental Quality Act (CEQA) statute and the CEQA guidelines (California Public Resources Code, Section 21000 et seq., and 14 CCR 15000 et seq., respectively). The Notice of Preparation (NOP) for the EIR was released for public review on March 7, 2019, and associated comment letters received during the public review period are included as Appendix A to this EIR. The Initial Study prepared for the Proposed Project is also included as Appendix A. This EIR addresses issues identified in the Initial Study and comments received regarding the NOP.

This EIR will be made available for review by members of the public and public agencies for 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" as stated in CEQA Guidelines, Section 15204 (14 CCR 15000 et seq.).

As the designated lead agency, the County is responsible for preparing this document. The decision to approve the Proposed Project is within the purview of the County Planning Commission and Board of Supervisors. When deciding whether to approve the Proposed Project, the County will use the information included in this EIR to consider potential impacts on the physical environment associated with the Proposed Project.

The County will consider written comments received on the Draft EIR in making its decision whether to certify the Final EIR as complete and in compliance with CEQA, and also whether to approve or deny the Proposed Project. Environmental considerations and economic and social factors may be weighed to determine the most appropriate course of action. If the EIR is certified and the Proposed Project approved, agencies with permitting authority over all or portions of the Proposed Project may use the EIR as the basis for their evaluation of environmental effects of the Proposed Project and approval or denial of applicable permits.

1.5.1 Project Approvals/Permits

The Proposed Project requires approval by the County. In addition, approvals or permits may be required by other state and federal agencies. Table 1-3, Approvals/Permits Expected to be

Obtained, includes discretionary approvals/permits that may be obtained during the decision-making process. The table is organized by agency/jurisdiction. In the case where multiple discretionary approvals/permits are necessary from a single agency, the approvals are listed in the order they are believed to occur.

In order to develop a solar facility on the Project site, discretionary actions from the County would be required, including a Major Use Permit (MUP). The Proposed Project is considered a Major Impact Service and Utility type. The Proposed Project is located on a site that is zoned a Specific Planning Area (S88) that has not adopted a Specific Plan. Pursuant to Section 2888.a. of the County Zoning Ordinance, a Major Use Permit may be granted for any use pursuant to a bonded agreement in an amount sufficient to ensure the removal of all buildings, structures, and other improvements within a specified amount of time and/or under specified conditions when the decision-making body finds that such agreement will carry pout the intent of this Ordinance and is enforceable by the County. Prior to approval of any project, the project will be required to provide a bond in an amount that is sufficient to ensure that all of the solar panels, battery storage containers, and other related materials could be removed at the end of the 35-year Major Use Permit.

Other County permits and approvals that would be required include a grading permit, building and demolition permits, County Right-of-Way Permit, and various ministerial permits. A demolition permit is required because the Proposed Project would demolish the dairy and ranch structures located within the Project site to the north of Old Highway 80. The Notice of Preparation (NOP) for the Proposed Project included a General Plan Amendment ("GPA") and a Rezone; however, the applications for the GPA and Rezone were subsequently withdrawn by the Project applicant. No changes to the existing General Plan land use designations or zoning are proposed by the applicant.

1.5.2 Related Environmental Review and Consultation Requirements

Pursuant to the CEQA Guidelines (Section 15365), the County prepared an NOP for this EIR. The NOP was publicly circulated for 30 days beginning March 7, 2019. The County held a public scoping meeting on March 21, 2019 at the Highland Community Center in Jacumba Hot Springs to provide responsible agencies and members of the public with information about the CEQA process and to provide further opportunities to identify environmental issues and alternatives for consideration in the EIR. Public comments received during the NOP scoping process are provided in Appendix A.

1.6 Applicable Regional and General Plans

Planning documents reviewed for the Proposed Project include the County's General Plan, the Mountain Empire Subregional Plan. Project consistency with applicable plans is discussed and analyzed in Section 3.1.4, Land Use and Planning of this EIR.

Other planning documents reviewed for the Proposed Project include the Regional Air Quality Strategy for the San Diego County Air Pollution Control District, the California Regional Water Quality Control Board (Region 9, San Diego, and Region 7, Colorado River) Basin Plans.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

CEQA Guidelines Section 15355 defines cumulative effects as two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts. The CEQA Guidelines further state that individual effects may include changes resulting from a single project or a number of separate projects, or the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. CEQA Guidelines Section 15130 allows for the use of two alternative methods to determine the scope of projects to analyze cumulative impacts.

List Method: A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

General Plan Projection Method: A summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document, that have been adopted or certified, which describe or evaluate regional or area-wide conditions contributing to the cumulative impact.

The cumulative analysis conducted for this EIR is based on both the list method and summary of projections method. The summary of projections method uses the County's General Plan and Mountain Empire Subregional Plan (both of which are available at the following website: http://www.sandiegocounty.gov/pds/generalplan.html); the summary project method was used in Section 2.2, Air Quality, and Section 2.7, Hydrology and Water Quality. Each environmental issue area within this EIR includes a discussion of potential cumulative impacts based on these methods. Table 1-4, Cumulative – Reasonably Foreseeable, Approved, and Pending Projects, lists projects that serve as the foundation on which the cumulative analysis approach has been based.

1.8 Growth-Inducing Impacts

CEQA requires a discussion of the ways in which a proposed project could induce growth. Growth-inducing impacts are those that foster economic or population growth, or the construction of new development, either directly or indirectly, in the surrounding environment. In addition, the potential for characteristics of the project to encourage or facilitate additional growth that could significantly affect the environment, either individually or cumulatively, must be considered.

During construction, the Proposed Project would employ a total of approximately 500 workers, with a daily maximum of 500 workers at the peak of construction. These workers are not anticipated to relocate to the area with their families and are not expected to induce substantial population growth in Jacumba Hot Springs or other areas within the Mountain Empire Subregion. It is anticipated that construction workers from the San Diego region to the west or Imperial Valley to the east would construct the Proposed Project. During the operational phase, the Proposed Project would not have any full-time personnel on site but may include up to five people on site during operations inspections, maintenance, and repair activities. The operational workers are not anticipated to relocate to Jacumba Hot Springs or the Mountain Empire Subregion. The limited scale of the solar facility construction and operation would not affect the employment base within the San Diego region as a whole.

Additionally, the development of the solar energy generation and storage project would not induce substantial population growth in the community of Jacumba Hot Springs and the Mountain Empire Subregion. The Proposed Project would not include any physical or regulatory changes that would remove a restriction to, or encourage population growth in an area, including, but not limited to, the following: large-scale residential development; accelerated conversion of homes to commercial or multifamily use; regulatory changes including General Plan Amendments encouraging population growth, specific plan amendments, zone reclassifications, or sewer or water annexations; or Local Agency Formation Commission annexation actions. As previously discussed in Section 1.1, Project Objectives, the Proposed Project is intended to develop a utility-scale solar energy project and energy storage facility that improves electrical reliability in the San Diego County region and other counties. The Proposed Project would supplement the region's energy supply and would not encourage housing growth or result in growth-inducing impacts.

Table 1-1
Proposed Project Construction Duration, Equipment, and Workers by Activity

Activity	Duration	Equipment	Pieces	Workers
Site mobilization	2 weeks	N/A	N/A	
Demolition of dairy and ranch structures	1 month (overlapping with Site Preparation, Grading, Stormwater Protection, and Fence Installation)	Excavators	1	
		Trackers/Loaders/ Backhoes	1	
Site preparation, grading, and stormwater protection	3 months (overlapping with Demolition of the Old Farm and Fence Installation)	Graders	2	
		Rubber Tired Loaders	1	
		Scapers	4	
		Tractors/Loaders/ Backhoes	1	
Fence installation	2 months (overlapping with Demolition of the Old Farm and Site Preparation, Grading and	Cement and Mortar Mixers	1	Maximum = 500
		Skid Steer Loaders	1	

Table 1-1
Proposed Project Construction Duration, Equipment, and Workers by Activity

Activity	Duration	Equipment	Pieces	Workers
	Stormwater Protection)			
Landscaping Installation	4 months (overlapping with Substation/Switchyard Construction, Pile Driving and Tracker and Module Installation)	Skid Steer Loaders	1	
		Tractors, Loaders, Backhoes	2	
Substation & Switchyard Construction	8 months (overlapping with Landscaping Installation, Pile Driving and Tracker and Module Installation)	Graders	3	
		Plate compactors	4	
		Rubber Tired Dozers	4	
		Rubber Tired Loaders	4	
		Scrapers	2	
		Tractors/Loaders/ Backhoes	1	
		Aerial lifts	1	
		Bore/Drill Rigs	2	
		Crushing/Proc. Equipment	1	
		Trenchers	4	
		Pavers	2	
		Paving Equipment	2	
		Rollers	3	
		Air Compressors	1	
		Bore/Drill Rigs	1	
		Cranes	1	
Pile Driving	2 months (overlapping with Landscaping Installation, Substation/Switchyard Construction, and Tracker and Module Installation)	Aerials Lifts	2	
		Other Construction Equipment	6	
Tracker and Module Installation	6 months (overlapping with Landscaping Installation, Substation/Switchyard construction and Pile Driving)	Aerial lifts	6	
		Off-Highway Trucks	5	
DC Electrical System Installation	6 months (overlapping with Landscaping Installation, Substation/Switchyard Construction, Pile Driving, and Tracker and Module Installation)	Aerial Lifts	2	
		Off-Highway Trucks	10	
Underground Medium AC Voltage Electrical	5 months (overlapping with Landscaping Installation, Substation/Switchyard Construction, Tracker and Module Installation, DC Electrical, and Underground Medium AC Voltage Electrical System installation)	Excavators	2	
		Rollers	1	
		Rubber Tired Loaders	1	

Table 1-1
Proposed Project Construction Duration, Equipment, and Workers by Activity

Activity	Duration	Equipment	Pieces	Workers
Inverter/Transformer Platforms Installation	2 months (overlapping with Substation/Switchyard Construction, DC Electrical, Underground Medium AC Voltage Electrical, and Battery Energy Storage System)	Cranes	1	
		Forklifts	1	
Battery Energy Storage System Installation	2 months (overlapping with Substation/Switchyard Construction, DC Electrical and Underground Medium AC Voltage Electrical, and Inverter/Transformer Pad Installation)	Cranes	1	
		Forklifts	1	
Commissioning/Testing	1 month	N/A	N/A	
Total Construction Time	13 months			

Table 1-2
Assessor's Parcel Numbers, Existing General Plan Land Use Designations, and Existing Zoning

Number	Assessor's Parcel Number	Acreage	Existing Regional Category	Existing Land Use Designation	Existing Zoning
1	614-100-20	90.22	Village	Specific Plan and Public Agency Lands	S80/S88/S92
2	614-100-21	27.27	Village	Specific Plan	S88
3	614-110-04	2.74	Village	Specific Plan	S88
4	660-020-05	267.56	Village	Specific Plan	S88
5	660-020-06	39.93	Village	Specific Plan	S88
6	660-150-04	34.96	Village	Specific Plan	S80
7	660-150-07	19.19	Village	Specific Plan	S80
8	660-150-08	23.2	Village	Specific Plan	S80
9	660-150-10	25.71	Village	Specific Plan	S80
10	660-150-14	0.92	Village	Specific Plan	S88
11	660-150-17	15.18	Village	Specific Plan	S88
12	660-150-18	169.74	Village	Specific Plan	S88
13	660-170-09	0.06	Village	Village Residential (VR-2)	RR
14	661-010-02	37.88	Rural	Rural Lands (RL-40)	S92
15	661-010-15	9.11	Village	Specific Plan	S88
16	661-010-26	61.13	Village	Specific Plan	S88
17	661-010-27	80.58	Village	Specific Plan	S88

Table 1-2
Assessor's Parcel Numbers, Existing General Plan Land Use Designations, and Existing Zoning

Number	Assessor's Parcel Number	Acreage	Existing Regional Category	Existing Land Use Designation	Existing Zoning
18	661-010-30	180.70	Village	Specific Plan	S88
19	661-060-12	166.38	Village	Specific Plan	S88
20	661-060-22	36.27	Village	Specific Plan	S80
21	660-140-06	1.79	Village	Rural Commercial	S88
22	660-140-08	16.91	Village	Specific Plan	S88
23	660-150-21	37.5	Village	Specific Plan	S88
24	660-150-16	0.92	Village	Rural Commercial	S88
	Total	**1,345.85***	**—**	**—**	**-**

* The Project site itself is 1,356 acres. The additional 10 acres includes the easement for Old Highway 80, which traverses the Project site.

Table 1-3
Approvals/Permits Expected to be Obtained

Government Agency	Action/Permit
County of San Diego	• Major Use Permit • County right-of-way permits (construction permit, excavation permit, and encroachment permit) • Grading permit (preliminary grading plan PDS2019-LDGRMJ-30240) • Building Permits • Demolition Permits • Improvement plans • Exploratory borings, direct-push samplers, and cone penetrometers permits • Waiver of Board Policy I-111 • Approval for the Transfer of Parcel to SDG&E
Regional Water Quality Control Board	• General Construction Stormwater Permit
Federal Aviation Administration	• Federal Aviation Administration 7460 – Aeronautical Study Determination of No Hazard
California Department of Transportation	• Transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code (1983)
U.S. Department of Homeland Security, U.S. Customs and Border Protection	• Consistency with U.S. Customs and Border Protection safety and access policies
San Diego County Fire Authority	• Fire and Emergency Protection Services Agreement
California Public Utilities Commission	• Section 851 Advice Letter
Miscellaneous	• All other discretionary permits and approvals necessary from local, state, and federal agencies with jurisdiction over the project.

Table 1-4
Cumulative – Reasonably Foreseeable, Approved, and Pending Projects

Project	Type	Status	Distance from Project	Project-Related Impacts
TULE WIND: 12,239 acres of public lands, 186 MW, with 57 wind turbines. The project would deliver power through the project substation via a 138-kV transmission line to run south to an interconnection with the proposed San Diego Gas & Electric (SDG&E) Rebuilt Boulevard Substation.	PF-W	Phase 1 = C Phase 2 = A	Approx. 8.5 miles 3352 McCain Valley Rd. Boulevard, CA 91905	Air Quality, Biological Resources, Cultural Resources, Public Services, and Hazards and Hazardous Materials (Fire)
RUGGED SOLAR: Major Use Permit Modification MUP-12-007W1, MUP-12-007TE; MUP for the construction and operation of a 74 MW solar energy system on an approximately 765-acre site. Original project approved; revised project under review.	PF-S	A/ UR	Approx. 8 miles Boulevard, CA 91905	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hydrology/ Water Quality, Noise, Public Services, and Hazards and Hazardous Materials (Fire)
GOLDEN ACORN CASINO AND TRAVEL CENTER: 33-acre expansion consisting of 15h0-room hotel, 900-space parking garage, surface parking, RV park, casino expansion, bowling alley, arcade, offices, retail, restaurants/food service, wind turbines, and water and wastewater improvements in three phases.	F	C	Approx. 1 2miles 1800 Golden Acorn Way, Campo, CA 91906	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Noise, Public Services, Utilities, and Hazards and Hazardous Materials (Fire)
FREEDOM RANCH: Major Use Permit; MUP 74-011W2; Expand existing facilities from 50 beds to 125 in four phases. (Alcohol/Drug Treatment and Recovery Facility)	R	A	Approx. 18 miles 1777 Buckman Springs Rd, Campo, CA 91906	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Noise, Public Services, Utilities, and Hazards and Hazardous Materials (Fire)
ROUGH ACRES FOUNDATION CAMPGROUND FACILITY; Major Use Permit; MUP-12-021; MUP for a campground/conference center. (wellness center and campground facility)	O	UR	Approx. 7.5miles APN 611-060-08, APN 611-070-03;	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Noise, Public Services, Utilities, and Hazards and Hazardous Materials (Fire)
JCSD Capacity Increase: Project would involve creation of new well at existing monitoring well site (Park Well) to increase capacity of JCSD water supply.	O	A	Adjacent to Project site, Park Well located within Jacumba Community Park	Hydrology Water Quality
BOULEVARD SOLAR: Major Use Permit Modification: MUP-12-010W1 MUP-12-010TE; MUP for the construction and operation of a 60 MW solar energy system on an approximately 420-acre site.	PF-S	UR	Approx. 7 miles	TBD pending completion of environmental analysis
BOULEVARD ENERGY STORAGE: Minor Use Permit; ZAP-17-006; ZAP for the construction and operation of a 100 MW energy storage facility on a 2-acre footprint.	PF	UR	Approx. 6 miles	TBD pending completion of environmental analysis
CAMERON SOLAR: Major use Permit; MUP-	PF-S	UR	Approx. 17miles	TBD pending completion of

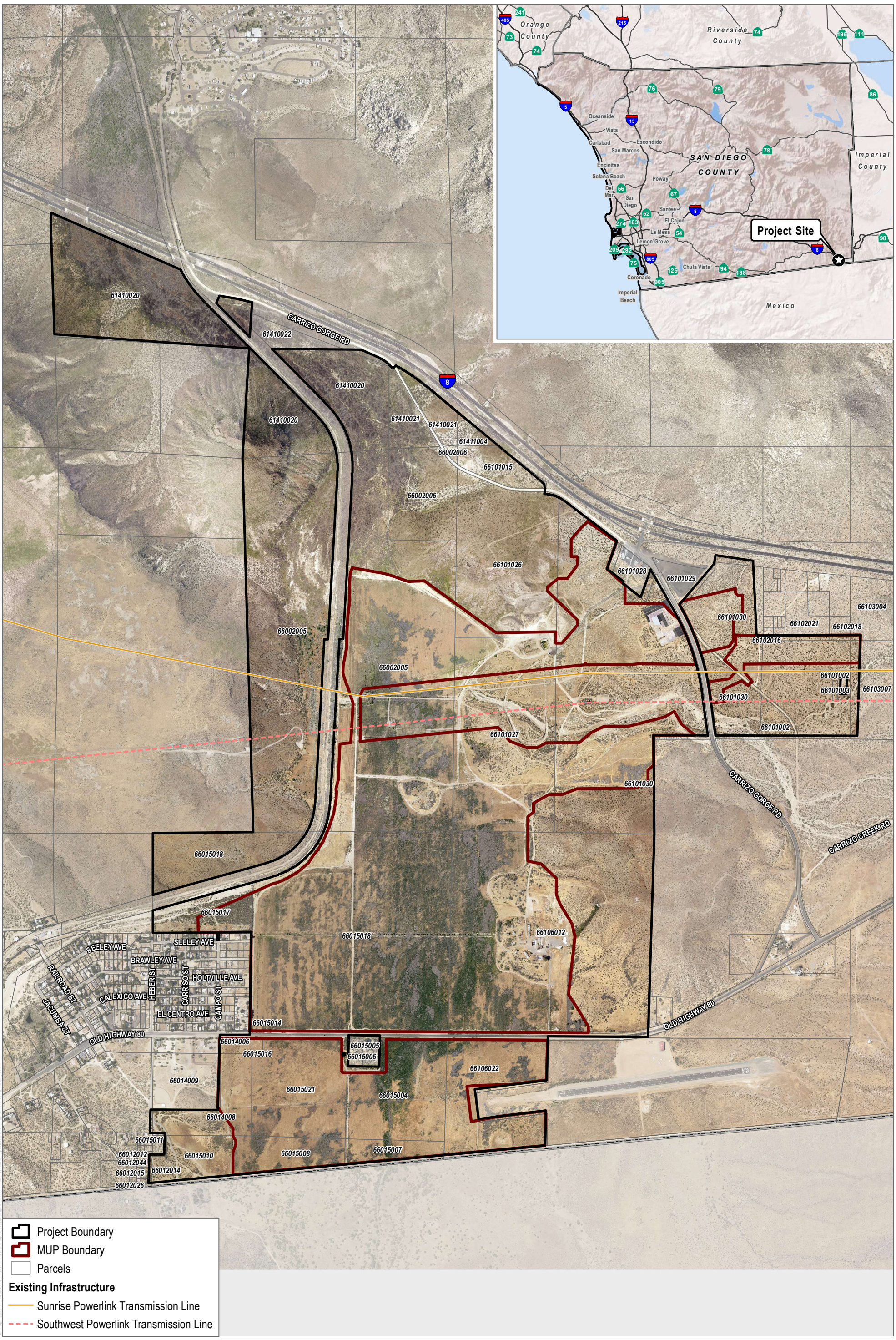
Table 1-4
Cumulative – Reasonably Foreseeable, Approved, and Pending Projects

Project	Type	Status	Distance from Project	Project-Related Impacts
18-004; MUP for the construction and operation of a 1.7 MW solar energy system consisting of approximately 19 acres on a 164.7-acre parcel.				environmental analysis
CAMPO WIND WITH BOULDER BRUSH FACILITIES: Major Use Permit for construction and operation of gen-tie line, switchyard and substation on 320 acres of private lands: MUP PDS2019-MUP-19-002. Construction and operation of a 250 MW wind energy generation facility consisting of 60 wind turbines on approximately 2,200 acres within Campo Reservation.	PF-W	UR	Approx. 11 miles	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Noise, Tribal Cultural Resources, Traffic and Transportation, Wildfire
LEVEL 3 COMMUNICATIONS LLC: Minor Use Permit; PDS2001-3400-99-031; For the construction and operation of a Fiberoptic In-Line Application Facility consisting of two equipment shelters measuring 414 square feet and 286 square feet, a second facility consisting of six new shelters comprising 2520 square feet, a 255 square foot generator shelter, the relocation of an existing 255 square foot generator hut, and a 8'6" sound wall.	PF	C	Approx. 15 miles 36549 Old Hwy 80, Pine Valley 609-040-09-00	Negative Declaration
SITE MASTER INC: Major Use Permit; MUP-14-005; MUP for the construction and operation of a 35-foot tall faux elevated water tank with two mounted microwave dishes.	PF	C	Approx. 15 miles 36549 Old Hwy 80, Pine Valley 609-040-09-00	Notice of Exemption
PACIFIC TELEPHONE: Major Use Permit; PDS2011-3300-76-061; MUP for the construction and operation of a 64 square foot equipment shelter.	PF	C	Approx. 16 miles 1746 Tierra Del Sol Rd, Boulevard 610-120-06-00	Special Use Permit
WHITE STAR COMMUNICATIONS SITE: Major Use Permit; PDS2011-3300-88-064; MUP for the construction and operation of a radio communications facility for SAFE (San Diego Authority for Freeway Emergency) consisting of a tower max height of 70', a mounted microwave dish, and a 200 square foot equipment shelter with an antenna max height 40'.	PF	C	Approx. 16 miles 1680 Tierra Del Sol Rd, Boulevard 610-121-07-00 610-062-44-00	Negative Declaration
PACTEL WHITE STAR: Major Use Permit; MUP PDS2003-3300-90-018; MUP for the construction and operation of a 100-foot lattice	PF	C	Approx. 16miles 1676 Tierra Del	Negative Declaration

Table 1-4
Cumulative – Reasonably Foreseeable, Approved, and Pending Projects

Project	Type	Status	Distance from Project	Project-Related Impacts
tower with 10-foot whip antenna on top and two buildings measuring 288 square feet and 567 square feet, a 270 square foot building, 8 panel antennas, a 6-foot dish antenna, a 159.5 square foot emergency standby generator surrounded by a 7'6" CMU block wall with roof and acoustic panel, 15 panel antennas, and a 230 square foot equipment shelter			Sol Rd, Boulevard 610-121-09-00	
SD0716 MANZANITA – FWLL MODIFICATION & T-MOBILE L700: Site Plan; PDS2016-STP-16-022, PDS2014-STP-14-009, PDS2016-STP-16-020; Site Plan for the construction and operation of 8 panel antennas, 4 new RRUs (total 5), 4 RF filters, 4 TMAs, 2 surge suppressors mounted to an existing 35-foot wooden pole, 2 new equipment cabinets (total 4), and one GPS antenna (total 2).	PF	C	Approx. 11 miles 2424 Ribbonwood Rd, Boulevard 612-021-03-00	Notice of Exemption
VZW I-8 BOULEVARD: Site Plan; PDS2014-STP-14-011; Site Plan for the construction and operation of 12 antennas mounted to a new 35 foot faux water tank, an associated equipment shelter, and an emergency generator.	PF	A	Approx. 11 miles 2403 Ribbonwood Rd, Boulevard 612-021-04-00	Biological Resources, Hazards & Hazardous Materials
Torrey Wind Project – PD2018-MUP-18-104; Major Use Permit for construction and operation of a126 MW of wind energy generation project Project proposes 30 new wind turbines (rated up to 4.2 megawatts (MW) each), an underground electrical collection system, a Project collector substation, a new 500 kV substation/switchyard located adjacent to the Sunrise Powerlink, an operations and maintenance (O&M) building, a temporary staging area, a batch plant, meteorological towers, and various access roads. The Project site is located on approximately 2,041 acres on private land in the McCain Valley area, north of the community of Boulevard and I-8.	PF-W	UR	Approx. 8.5 miles McCain Valley, Boulevard, CA 91905	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Noise, Traffic and Transportation, Wildfire

PF = Public Facilities & Utilities; S = Solar; W = Wind; T = Transmission; F = Federal; R = Residential; O = Other; MUP = Major Use Permit; A = Approved; UC=under construction; UR = under review C = Completed kV = kilovolt; MW=megawatt; ECO=East County; TM=Tentative Map



Project Boundary
MUP Boundary
Parcels

Existing Infrastructure

Sunrise Powerlink Transmission Line
Southwest Powerlink Transmission Line

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 500 1,000 Feet

FIGURE 1-1

Project Location

JVR Energy Park Project

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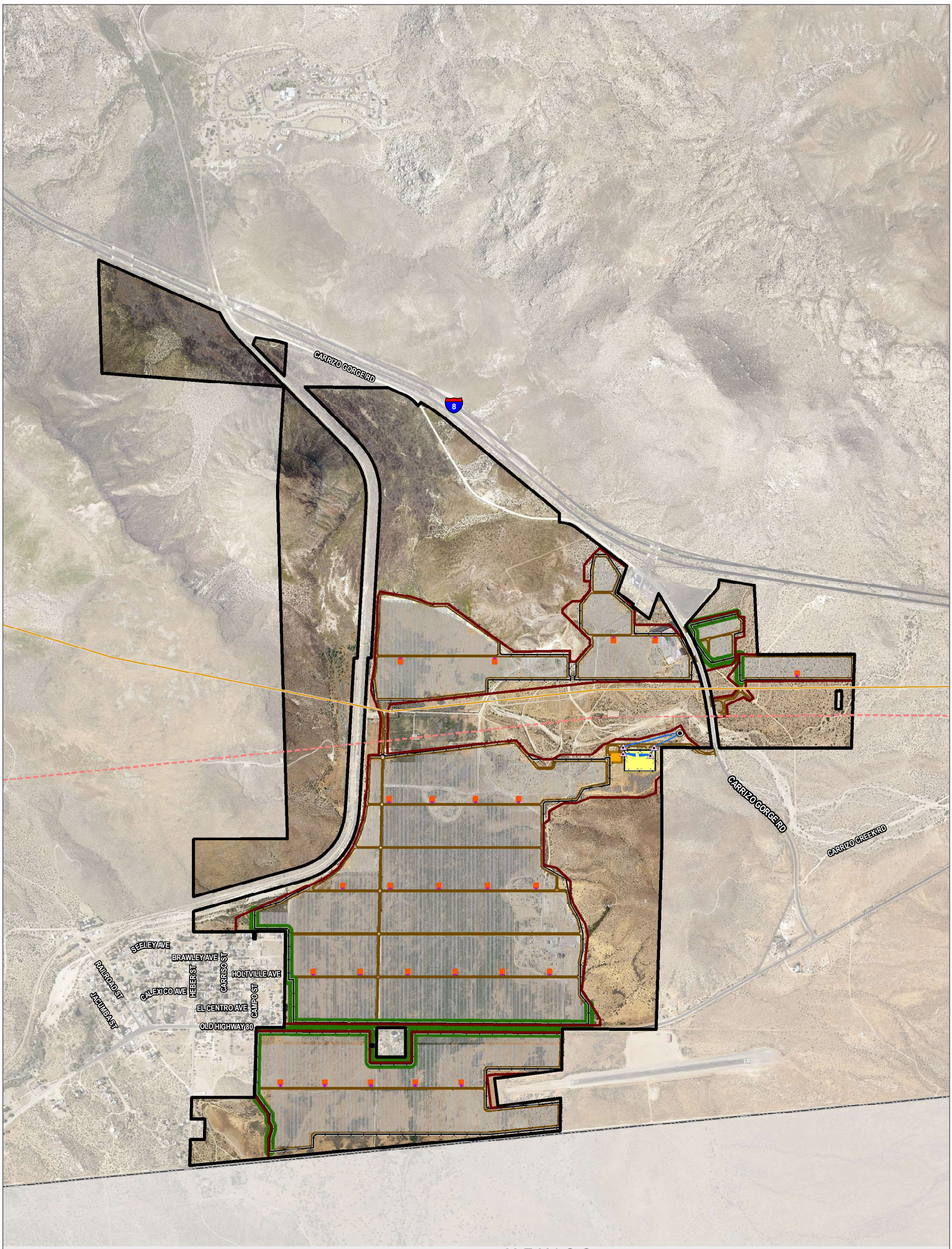

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 500 1,000 Feet

FIGURE 1-2

Project Components

JVR Energy Park Project

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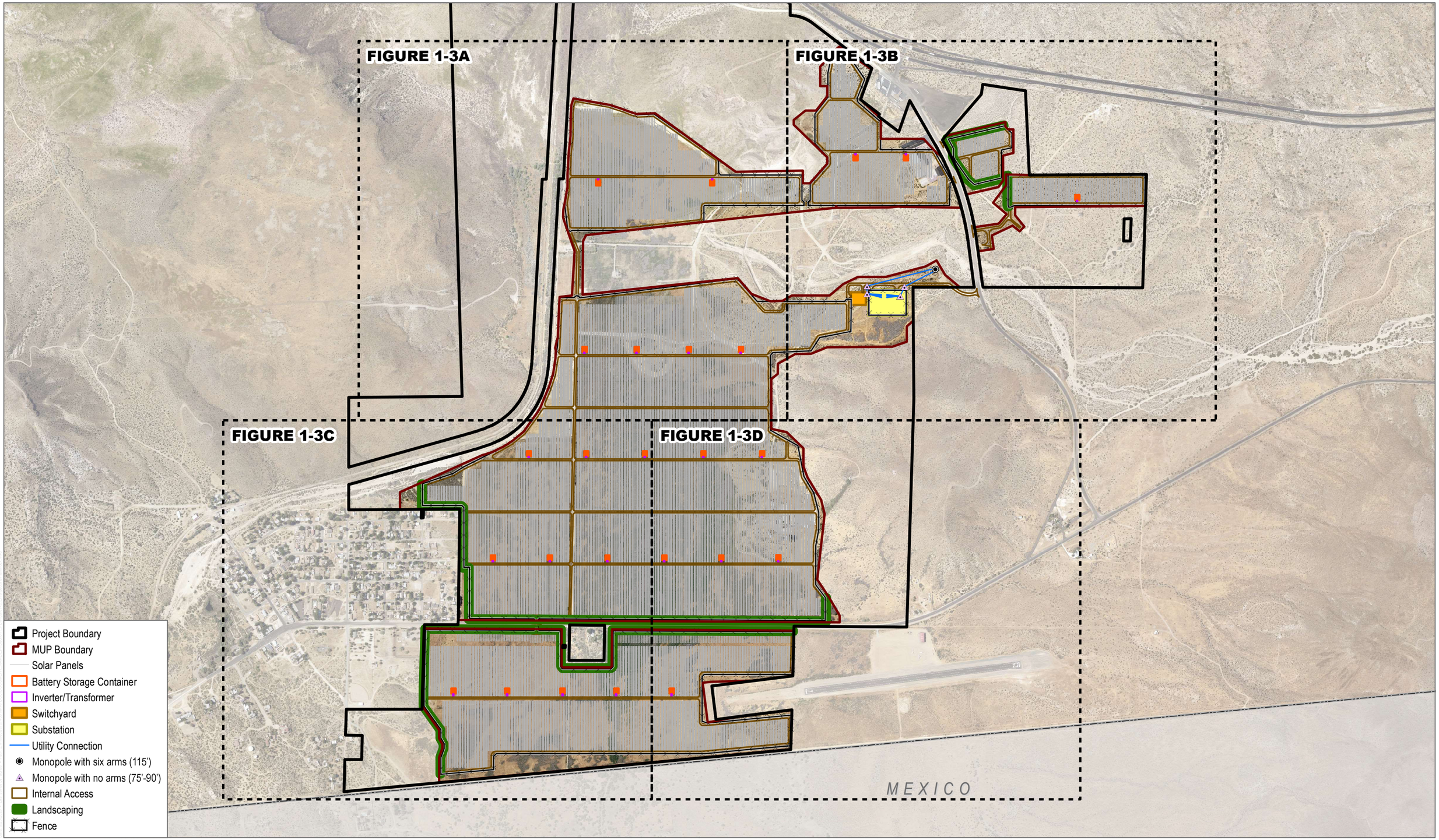

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 500 1,000 Feet

FIGURE 1-3

Enlarged Site Plan Index

JVR Energy Park Project

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SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 250 500 Feet

FIGURE 1-3A

Enlarged Site Plan

JVR Energy Park Project

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Project Boundary
MUP Boundary
Solar Panels
Battery Storage Container
Inverter/Transformer
Switchyard
Substation
Utility Connection
Monopole with six arms (115')
Monopole with no arms (75'-90')
Internal
Landscaping
Fence

Existing Infrastructure

Sunrise Powerlink Transmission Line
Southwest Powerlink Transmission Line

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 250 500 Feet

FIGURE 1-3B

Enlarged Site Plan

JVR Energy Park Project

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SEELEY AVE
SEELEY AVE
BRAWLEY AVE
CAMPO ST
HOLTVILLE AVE
HEBER ST
CARRISO ST
CALEXICO AVE
RAILROAD ST
JACUMBA ST
EL CENTRO AVE
Jacumba Hot Springs
OLD HIGHWAY 80
Jacumba Community Park
MEXICO

- Project Boundary
- MUP Boundary
- Solar Panels
- Battery Storage Container
- Inverter/Transformer
- Fence
- Internal Access
- Landscaping

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 250 500 Feet

FIGURE 1-3C

Enlarged Site Plan

JVR Energy Park Project

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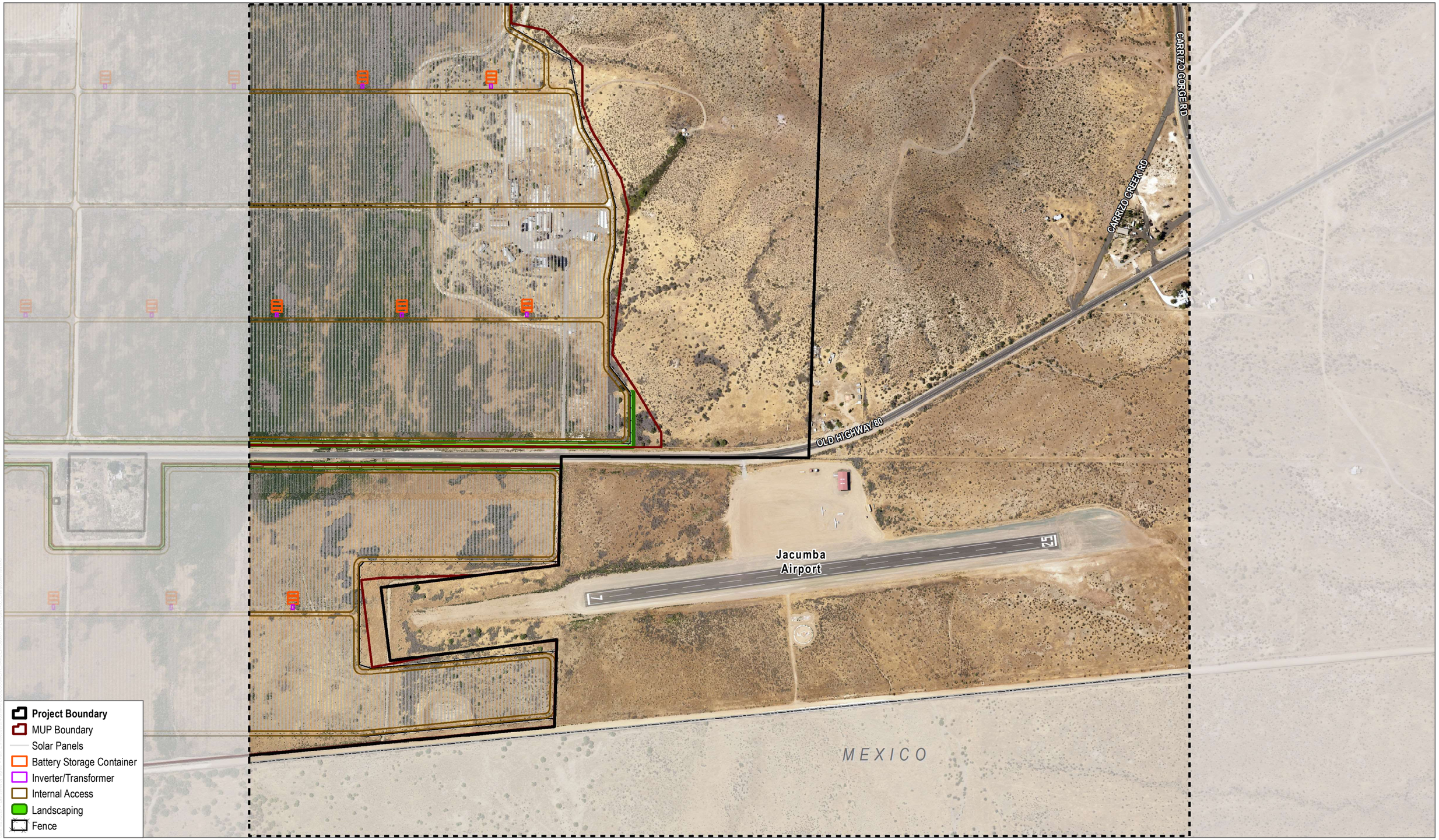

SOURCE: Kimley-Horn 2020; SANGIS 2017, 2020

DUDEK

0 250 500 Feet

FIGURE 1-3D

Enlarged Site Plan

JVR Energy Park Project

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FIGURE 1-4

Photovoltaic Module and Support Structure

JVR Energy Park Project

DUDEK

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FIGURE 1-5

Typical Battery Energy Storage Container

JVR Energy Park Project

DUDEK

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