

Draft Environmental Impact Report

VEGA SES 6 Solar and Battery Storage Project

SCH No. 2022070146

Imperial County, California

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- Appendix B Visual Impact Assessment Letter Report – VEGA SES 6 Project
- Appendix C1 Air Quality and Greenhouse Gas Assessment for the VEGA SES 6 Solar and Battery Storage Project
- Appendix C2 CalEEMod Worksheets for the Ramon Substation Expansion
- Appendix D1 Biological Technical Report - VEGA SES 6 Solar Project
- Appendix D2 Biological Resources Report - Ramon Substation Expansion
- Appendix E1 Aquatic Resources Delineation - VEGA SES 6 Solar Project
- Appendix E2 Aquatic Resources Survey Report - Ramon Substation Expansion
- Appendix F1 VEGA 6 Cultural Resources Inventory Report
- Appendix F2 Ramon Substation Expansion - Cultural Resource Technical Study
- Appendix G Geotechnical Report for the VEGA 6 Solar Project
- Appendix H Phase I Environmental Site Assessment Report for the VEGA 6 Solar Site
- Appendix I Noise Impact Assessment for the VEGA SES 6 Solar and Battery Storage Project
- Appendix J VEGA SES 6 Solar Energy Storage Project Traffic Impact Study
- Appendix K Water Supply Assessment (WSA) for the ZGlobal Vega 6, LLC Solar Energy and Battery Storage Project
- Appendix L Energy Consumption Assessment for the VEGA SES 6 Solar and Battery Storage Project

Executive Summary

This Environmental Impact Report (EIR) has been prepared in compliance with the California Environmental Quality Act (CEQA) Public Resources Code [PRC] Section 21000 et seq., the CEQA Guidelines (Section 15000 et seq.) as promulgated by the California Resources Agency and the Governor's Office of Planning and Research (OPR). The purpose of this environmental document is to assess the potential environmental effects associated with the VEGA SES 6 Solar and Battery Storage Project and Ramon Substation expansion and to propose mitigation measures, where required, to reduce significant impacts.

Project Overview

VEGA 6

The solar energy facility site is located on approximately 320 acres of privately-owned vacant land on a single parcel (Assessor Parcel Number (APN) 034-160-002) in the unincorporated Imperial County, California. The site is located approximately 6 miles south of the southern-most edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. The solar energy facility site is located directly south of Andre Road and 0.50 mile west of the Westside Main Canal.

The solar energy facility site is bound by undeveloped Open Space/Bureau of Land Management (BLM) land immediately to the west and south, and active agricultural land to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the solar energy facility site.

The proposed VEGA 6 project involves the construction and operation of an 80 megawatt (MW) photovoltaic (PV) solar facility with an integrated 160 MW battery storage system (BESS) on approximately 320 acres of privately-owned land. The proposed VEGA 6 project would be comprised of solar PV arrays panels, an on-site substation, BESS, gen-tie line, inverters, transformers, underground electrical cables, and access roads. The proposed gen-tie line would be approximately 4-miles long and would connect to the Imperial Irrigation District's (IID) existing 161 kV "L" transmission line. The entire gen-tie route would be on federal lands managed by BLM within the California Desert Conservation Area planning area.

Ramon Substation Expansion

Energy generated by the VEGA 6 project will be transmitted to IID's existing 161 kV "L" Line, with ultimate delivery to IID's Ramon Substation in Riverside County. IID has identified that upgrades to the Ramon Substation will be required in order to accommodate several planned utility-scale projects, including the VEGA 6 project. Upgrades to the Ramon Substation would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. The proposed upgrades to the Ramon Substation are necessary infrastructure improvements to accommodate several planned utility-scale projects, including the VEGA 6 project, to connect to the IID grid. Because it is a necessary infrastructure improvement to allow the VEGA 6 project to connect to the IID grid, the Ramon Substation expansion is considered a connected project for the purposes of CEQA review.

The existing Ramon Substation is located on a single parcel (APN 651-230-015) in unincorporated Riverside County, generally northeast of Cathedral City, north of the Interstate-10 Freeway. The existing substation currently occupies approximately 6.7 acres of the 11.26-acre parcel. The proposed upgrades would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. Immediately west of the existing Ramon Substation and proposed expansion area is the existing Southern California Edison Mirage Substation. Access to the existing substation is provided by Ramon Road, which is immediately south of the existing substation.

Purpose of an EIR

The purpose of an EIR is to analyze the potential environmental impacts associated with a project. CEQA (Section 15002) states that the purpose of CEQA is to: (1) inform the public and governmental decision makers of the potential significant environmental impacts of a project; (2) identify the ways that environmental damage can be avoided or significantly reduced; (3) prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and (4) disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Eliminated from Further Review in Notice of Preparation

Based on the Initial Study and Notice of Preparation (IS/NOP) prepared for the proposed VEGA 6 project (Appendix A of this EIR), Imperial County (County) determined that environmental effects to Forestry Resources, Energy, Mineral Resources, Population/Housing, Public Services, Utilities (Wastewater, Stormwater, and Solid Waste), and Wildfire would not be potentially significant. Therefore, these impacts are not addressed in this EIR; however, the rationale for eliminating these issues is discussed in Chapter 6.0, Effects Found Not Significant.

Summary of Significant Impacts and Mitigation Measures that Reduce or Avoid the Significant Impacts

Based on the analysis presented in the IS/NOP and the information provided in the comments to the IS/NOP, the following environmental topics are analyzed in this EIR:

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- GHG Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise and Vibration
- Public Services (Fire Protection and Police Protection)
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems (Water Supply)



Table ES-1 summarizes existing environmental impacts that were determined to be potentially significant, mitigation measures, and level of significance after mitigation associated with the VEGA 6 project. Table ES-2 summarizes existing environmental impacts that were determined to be potentially significant, mitigation measures, and level of significance after mitigation associated with the proposed Ramon Substation expansion.

Areas of Controversy and Issues to be Resolved

Areas of Concern

Section 15123(b)(2) of the CEQA Guidelines requires that an EIR identify areas of controversy known to the Lead Agency, including issues raised by other agencies and the public as well as issues to be resolved. A primary issue associated with this solar farm project, and other solar facility projects that are proposed in the County, is the corresponding land use compatibility and fiscal/economic impacts to the County. Through the environmental review process for this project, other areas of concern and issues to be resolved include potential impacts related to impacts to IID facilities, traffic, special-status species, and air quality. Detailed analyses of these topics are included within each corresponding section contained within this document.

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Table ES-1. Summary of VEGA 6 Project Impacts and Proposed Mitigation Measures

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
Air Quality			
Impact 3.3-1: Conflict with or obstruct implementation of the applicable air quality plan.	Potentially Significant	<p>AQ-1 Fugitive Dust Control. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process.</p> <p>ICAPCD Standard Measures for Fugitive Dust (PM₁₀) Control</p> <ul style="list-style-type: none"> • All disturbed areas, including bulk material storage, which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material, such as vegetative ground cover. • All on-site and offsite unpaved roads will be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering. • All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering. • The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material. • All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends 	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>a cumulative distance of 50 linear feet or more onto a paved road within an urban area.</p> <ul style="list-style-type: none"> • Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line. • The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering. <p>Standard Mitigation Measures for Construction Combustion Equipment</p> <ul style="list-style-type: none"> • Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum. • Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use. • When commercially available, replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set). <p>AQ-2 During construction activities, the construction contractor shall employ the following PM₁₀ reducing measures:</p> <ul style="list-style-type: none"> • All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/ square yard of chemical dust suppressant. 	



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> All vehicles accessing the project site on unpaved roads shall be limited to a speed of 15 miles per hour. <p>The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.</p> <p>AQ-3 Construction Equipment. Construction equipment shall be equipped with an engine designation of EPA Tier 2 or better (Tier 2+). A list of the construction equipment, including all off-road equipment utilized at each of the projects by make, model, year, horsepower and expected/actual hours of use, and the associated EPA Tier shall be submitted to the County Planning and Development Services Department and ICAPCD prior to the issuance of a grading permit. The equipment list shall be submitted periodically to ICAPCD to perform a NO_x analysis. ICAPCD shall utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds. The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.</p> <p>AQ-4 Speed Limit. During construction and operation of the proposed project, the applicant shall limit the speed of all vehicles operating onsite on unpaved roads to 15 miles per hour or less.</p> <p>AQ-5 Dust Suppression. The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/ square yard of chemical dust suppressant. The project applicant shall apply chemical stabilization as directed by the product manufacturer to control dust between the panels as approved by ICAPCD, and other non-used areas (exceptions will be the paved entrance and parking area, and Fire Department access/emergency entry/exit points as approved by Fire/Office of Emergency Services [OES] Department).</p> <p>AQ-6 Dust Suppression Management Plan. Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain ICAPCD and Imperial County</p>	

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>Planning and Development Services Department (ICPDS) approval.</p> <p>AQ-7 Operational Dust Control Plan. Prior to issuance of a Certificate of Occupancy, the applicant shall submit an operations dust control plan and obtain ICAPCD and ICPDS approval. ICAPCD Rule 301 Operational Fees apply to any project applying for a building permit. At the time that building permits are submitted for the proposed project, ICAPCD shall review the project to determine if Rule 310 fees are applicable to the project.</p>	
<p>Impact 3.3-2: Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.</p>	<p>Potentially Significant</p>	<p>Implement Mitigation Measures AQ-1 through AQ-7</p>	<p>Less than Significant</p>
<p>Biological Resources</p>			
<p>Impact 3.4-1: Potential impacts on special-status species.</p>	<p>Potentially Significant</p>	<p>BIO-1 Preconstruction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a preconstruction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the northern harrier, loggerhead shrike, black-tailed gnatcatcher, and burrowing owl, will not be disturbed or destroyed. The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly, due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately sized disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.</p>	<p>Less than Significant</p>



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>BIO-2 Riparian Habitat or Sensitive Habitat Avoidance: To the greatest extent possible, plans shall avoid impacts to disturbed tamarisk thicket habitats to minimize potential impacts to special-status species.</p> <p>BIO-3 Minimization of Impacts to Sensitive Species on BLM Land: All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent work spaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. To control for introduction of invasive plant species, tires shall be cleaned prior to entering BLM lands.</p> <p>BIO-4 Biological Monitoring: A qualified biologist shall be present to monitor all ground-disturbing in vegetated areas and vegetation-clearing activities conducted for the project. During each monitoring day, the biological monitor shall perform clearance survey “sweeps” at the start of each workday that vegetation clearing takes place to minimize impacts on special-status species with potential to occur (including, but not limited to, special-status or nesting bird species, flat-tailed horned lizard, and American badger). The monitor will be responsible for ensuring that impacts to special-status species, nesting birds, and active nests will be avoided to the greatest extent possible. Biological monitoring shall take place until the project area has been completely cleared of any vegetation. If an active nest is identified, the biological monitor shall establish an appropriate disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed no longer active by the biologist. If special-status wildlife species are detected during biological monitoring activities, then consultation with the USFWS or CDFW shall be conducted, and a mitigation plan shall be developed to avoid and offset impacts to these species. Mitigation measures may consist of work restrictions or additional biological monitoring activities after ground-disturbing activities are complete.</p>	

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>BIO-5 Preconstruction Surveys for Burrowing Owl: Preconstruction surveys for burrowing owl shall be conducted within the areas assessed as having burrowing owl potential of the project area and adjacent areas prior to the start of ground-disturbing activities. Two surveys shall be conducted, with the first survey being conducted between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified in the project area during the survey and impacts to those features are unavoidable, consultation with the CDFW shall be conducted and the methods for avoidance or passive relocation should be followed.</p> <p>BIO-6 Minimization of Impacts to Palm Springs Pocket Mouse: Habitats on the VEGA 6 solar facility site and parts of the gentle line are suitable for the Palm Springs pocket mouse; presence could be assumed based on proximity of records and recommendations from small mammal experts that were consulted. If presence is assumed, consultation to develop suitable mitigation measures or in-kind mitigation to offset impacts with the CDFW may need to occur. If presence is not assumed, protocol surveys to determine presence or absence of Palm Springs pocket mouse are recommended. A preconstruction small mammal trapping survey shall be conducted for Palm Springs pocket mouse within suitable habitat in all areas of potential permanent and temporary disturbance lead by qualified biologists that are permitted to trap and handle small mammals under Memorandums of Understanding and Scientific Collection Permits with CDFW. Should Palm Springs pocket mouse individuals be identified during the preconstruction survey, consultation to develop suitable mitigation measures with the CDFW will occur. If the project area is found to be absent of Palm Springs pocket mouse, no further mitigation is required.</p> <p>BIO-7 Minimization of Impacts to Wetland/Riparian Habitat: New structures shall not be placed within 50 feet of wetland or riparian habitat boundaries. A construction buffer of 300 feet shall be established around the wetlands and riparian habitats during bird breeding season (February 1 to August 31). Prior to construction, fencing shall be installed</p>	



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		approximately 10 feet from the wetland and riparian habitat boundaries within 50 feet of the VEGA 6 project area. Fencing shall be easily visible to construction personnel.	
Impact 3.4-2: Impact on riparian habitat or other sensitive natural communities.	Potentially Significant	BIO-8 Aquatic Resources Permitting: If project-related impacts will occur to areas under the jurisdiction of the USACE, CDFW, or RWQCB, a regulatory permit with those agencies will be required prior to the impact occurring. Permitting includes preparation and submittal of a Preconstruction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA, and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. Typically, the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.	Less than Significant
Impact 3.4-3: Impact on state or federally-protected wetlands.	Potentially Significant	Implement Mitigation Measures BIO-2, BIO-7, and BIO-8.	Less than Significant
Impact 3.4-6: Conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan.	Potentially Significant	Implement Mitigation Measure BIO-3.	Less than Significant
Cultural Resources			
Impact 3.5-1: Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	Potentially Significant	CUL-1 Prepare Phase I Cultural Resources Survey Report. Prior to issuance of a grading permit, the project applicant shall retain a qualified archaeologist defined as one meeting the Secretary of the Interior's Professional Qualification	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>Standards (U.S. Department of the Interior 2008) to oversee a Phase I cultural resources survey for the VEGA 6 project, to determine if previously unidentified cultural resources exist within the project site and to relocate and evaluate the previously identified resources that have not yet been evaluated. The methods and results of the survey, as well as the records search, shall be summarized in a Phase I cultural resources survey report that follows the guidelines in Archaeological Resource Management Reports: Recommended Contents and Format, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990. The report shall address the requirements of CEQA.</p> <p>CUL-2 Evaluate Significance of Find. If previously documented but unevaluated and/or newly documented archaeological resources are identified within the project site, they should be evaluated for inclusion in the CRHR and/or as unique archaeological resources. Should newly documented archaeological resources be found eligible for listing in the CRHR and/or constitute unique archaeological resources, avoidance and preservation in place is the preferred manner of mitigation. If avoidance is not feasible, a treatment plan should be developed by the qualified archaeologist in coordination with the project applicant and the lead agency that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resources.</p>	
<p>Impact 3.5-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.</p>	<p>Potentially Significant</p>	<p>CUL-3 Evaluate Significance of Find (Unknown Archaeological Resources). In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a “stop work” notice or otherwise interfere with the project’s continuation except as set forth in this paragraph.</p>	<p>Less than Significant</p>



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>In the event of an unanticipated discovery of archaeological materials during construction, the applicant shall retain the services of a qualified professional archaeologist, meeting the Secretary of the Interior's Standards for a Qualified Archaeologist, to evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.</p>	
<p>Impact 3.5-3: Disturb human remains.</p>	<p>Potentially Significant</p>	<p>CUL-4 Human Remains. If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> • If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Imperial County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. • If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). 	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the Imperial County Planning and Development Services Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	
Geology/Soils			
Impact 3.6-2: Possible risks to people and structures caused by seismic ground shaking.	Potentially Significant	<p>GEO-1 Prepare Geotechnical Report(s) as Part of Final Engineering for the Project and Implement Required Measures. Facility design for all project components shall comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer to be retained by the project applicant. The final geotechnical and/or civil engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> • Site preparation • Soil bearing capacity • Appropriate sources and types of fill • Potential need for soil amendments • Structural foundations • Grading practices • Soil corrosion of concrete and steel • Erosion/winterization • Seismic ground shaking • Liquefaction • Expansive/unstable soils <p>In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions, and</p>	Less than Significant



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant. The final geotechnical and/or civil engineering report shall be submitted to Imperial County Public Works Department, Engineering Division for review and approval prior to issuance of building permits.	
Impact 3.6-5: Substantial soil erosion or the loss of topsoil.	Potentially Significant	Implement Mitigation Measures GEO-1 and HYD-1.	Less than Significant
Impact 3.6-6: Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project.	Potentially Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.6-7: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Potentially Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.5-9: Impact on paleontological resources.	Potentially Significant	GEO-2 Paleontological Resources. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the project site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		exist within the project site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.	
Hydrology/Water Quality			
Impact 3.9-1: Violation of water quality standards.	Potentially Significant	<p>HYD-1 Prepare SWPPP and Implement BMPs Prior to Construction and Site Restoration. The project applicant or its contractor shall prepare a SWPPP specific to the project and be responsible for securing coverage under SWRCB’s NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by the appropriate agency prior to commencement of work and shall be made conditions of the contract with the contractor selected to build and decommission the project. The SWPPP shall incorporate control measures in the following categories:</p> <ul style="list-style-type: none"> • Soil stabilization and erosion control practices (e.g., hydroseeding, erosion control blankets, mulching) • Sediment control practices (e.g., temporary sediment basins, fiber rolls) • Temporary and post-construction on- and off-site runoff controls • Special considerations and BMPs for water crossings and drainages • Monitoring protocols for discharge(s) and receiving waters, with emphasis place on the following water quality objectives: dissolved oxygen, floating material, oil and grease, potential of hydrogen (pH), and turbidity • Waste management, handling, and disposal control practices 	Less than Significant



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Corrective action and spill contingency measures • Agency and responsible party contact information • Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP <p>The SWPPP shall be prepared by a Qualified SWPPP Practitioner and/or Qualified SWPPP Developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.</p> <p>HYD-2 Incorporate Post-Construction Runoff BMPs into Project Drainage Plan. The project Drainage Plan shall adhere to the County’s Engineering Guidelines Manual, IID “Draft” Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. Infiltration basins will be integrated into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary.</p>	
Impact 3.9-3: Result in erosion or siltation on- or off-site.	Potentially Significant	Implement Mitigation Measure HYD-1.	Less than Significant
Impact 3.9-4: Increase the rate or amount of surface runoff in a	Potentially Significant	Implement Mitigation Measure HYD-2.	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
manner which would result in flooding on- or off-site.			
Impact 3.9-5: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Potentially Significant	Implement Mitigation Measure HYD-1.	Less than Significant
Impact 3.9-8: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Potentially Significant	Implement Mitigation Measures HYD-1 and HYD-2.	Less than Significant



Table ES-2. Summary of Proposed Ramon Substation Expansion Impacts and Proposed Mitigation Measures

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
Biological Resources			
Impact 3.4-1: Potential impacts on special-status species.	Potentially Significant	<p>RS-BIO-1 Coachella Valley Multiple Species Habitat Conservation Plan Fee Payment: As a signatory to the Coachella Valley Multiple Species Habitat Conservation Plan, the IID shall require a local development mitigation fee prior to the issuance of building permits for the proposed use on the project site at the rates applicable at the time of payment of the fee as set forth in the most recent fee schedule. The Project applicant shall be required to provide documentation to the IID confirming the payment of the local development mitigation fee.</p> <p>The Coachella Valley milk-vetch and Coachella Valley fringe-toed lizard are federally listed species and CVMSHCP covered species with potential to occur within the project footprint. Direct impacts to these species' as a result of the covered Project activity would be in compliance with the CVMSHCP as long as the IID, a permittee of the CVMSHCP, submits a payment of the mitigation fee, complies with the requirements of CVMSHCP Section 4.2, Conservation Areas; Section 4.4, Avoidance, Minimization, and Mitigation Measures; and Section 4.5 Land Use Adjacency Guidelines, and is in full compliance with CEQA, CESA, and FESA requirements.</p> <p>RS-BIO-2 Biological Resource Protection Measures Prior to Construction:</p> <p>a. Prior to the commencement of construction, a project biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with special status plant and wildlife species with the potential to be affected by the proposed Ramon Substation expansion) shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The project biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The project biologist may designate</p>	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>qualified biologists or biological monitors to help oversee project compliance or conduct preconstruction surveys for special status species. These biologists shall have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.</p> <p>b. The project biologist or designated qualified biologist shall review final plans, designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special status plant and wildlife species. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground disturbing activities, and the installation of BMPs and fencing to protect jurisdictional resources, and shall ensure that all regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a special status wildlife species is encountered within the Project area during construction. Construction activities shall cease until the Project Biologist or qualified biologist determine(s) that the animal will not be harmed or that it has left the construction area on its own. The appropriate regulatory agency(ies) shall be notified within 24 hours of sighting of a special status wildlife species.</p> <p>c. Prior to the start of construction, all project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the project biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on jurisdictional resources. At a minimum, the</p>	



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>training shall include the following topics: (1) occurrences of special status species and special status vegetation communities in the project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose for resource protection; (3) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid jurisdictional resource areas in the field (i.e., avoid areas delineated on maps or on the Project site by fencing); (5) environmentally responsible construction practices; and (6) the protocol to resolve conflicts that may arise at any time during the construction process.</p> <p>d. Prior to any ground disturbance the project boundary will be fenced as a means to protect the adjacent lands. The fencing/signage shall be clearly marked in the field by construction personnel under the guidance of the biologist or designated employee. The fencing/signage will remain in place for the duration of the project activities and no work or other project activities will occur outside of the fenced area to incidental impacts to nearby species. Upon completion of project activities, the fencing/signage will be removed.</p> <p>e. Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into special status vegetation communities. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water.</p> <p>f. Clearing shall be confined to the minimum area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent off site spoils location or at a temporary on site location that will not create habitat for special status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations.</p>	

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>g. The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep walled holes or trenches more than 1 foot deep at the end of each construction workday. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractor.</p> <p>h. Wildlife can be attracted to den like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special status species has moved from the structure of its own volition, has been captured and relocated, or has otherwise been removed from the structure.</p> <p>i. The spread of dust from work sites to special-status vegetation communities or habitats for special-status species on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered at least twice each day when being used during construction dry periods.</p> <p>RS-BIO-3 Minimize and Avoid Impacts on Special-Status Species:</p>	



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>a. The project biologist shall conduct focused pre-construction surveys for federal- and State-listed and other special-status plants. All special-status plant species (including listed threatened or endangered species, and all CRPR 1A, 1B, 2, 3, and 4 ranked species) impacted by project activities shall be documented in pre-construction survey reports. Surveys shall be conducted during the appropriate season in all suitable habitat located within the project footprint. The field surveys and reporting must conform to current CDFW botanical field survey protocol (CDFG 2009) or more recent updates, if available.</p> <p>b. The project biologist shall conduct focused pre-construction surveys for any special-status wildlife species, including Coachella Valley fringe-toed lizard, flat-tailed horned lizard, burrowing owl, loggerhead shrike, vermilion flycatcher, Palm Springs pocket mouse, American badger, and Coachella Valley round-tailed ground squirrel. Surveys shall be conducted at least 14 days prior to the start of construction within suitable habitat located within the project footprint. At the discretion of the project Biologist, work will be halted if the species are highly disturbed.</p>	
Impact 3.4-6: Conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan.	Potentially Significant	Implement Mitigation Measures RS-BIO-3.	Less than Significant
Cultural Resources			
Impact 3.5-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Potentially Significant	RS-CUL-1 Evaluate Significance of Find (Unknown Archaeological Resources). In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the County of Riverside	Less than Significant

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>Planning Department. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a “stop work” notice or otherwise interfere with the project’s continuation except as set forth in this paragraph.</p> <p>In the event of an unanticipated discovery of archaeological materials during construction, the applicant shall retain the services of a qualified professional archaeologist, meeting the Secretary of the Interior’s Standards for a Qualified Archaeologist, to evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery.</p>	
<p>Impact 3.5-3: Disturb human remains.</p>	<p>Potentially Significant</p>	<p>RS-CUL-2 Human Remains. If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior’s Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> • If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. • If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning 	<p>Less than Significant</p>



Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<p>treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the County of Riverside Planning Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.</p>	
Hydrology/Water Quality			
<p>Impact 3.9-1: Violation of water quality standards.</p>	<p>Potentially Significant</p>	<p>RS-HYD-1 Prepare SWPPP and Implement BMPs Prior to Construction. IID or its contractor shall prepare a SWPPP specific to the project and be responsible for securing coverage under SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by the appropriate agency prior to commencement of work and shall be made conditions of the contract with the contractor selected to build the project. The SWPPP shall incorporate control measures in the following categories:</p> <ul style="list-style-type: none"> • Soil stabilization and erosion control practices (e.g., hydroseeding, erosion control blankets, mulching) • Sediment control practices (e.g., temporary sediment basins, fiber rolls) • Temporary and post-construction on- and off-site runoff controls 	<p>Less than Significant</p>

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Special considerations and BMPs for water crossings and drainages • Monitoring protocols for discharge(s) and receiving waters, with emphasis place on the following water quality objectives: dissolved oxygen, floating material, oil and grease, potential of hydrogen (pH), and turbidity • Waste management, handling, and disposal control practices • Corrective action and spill contingency measures • Agency and responsible party contact information • Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP <p>The SWPPP shall be prepared by a Qualified SWPPP Practitioner and/or Qualified SWPPP Developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.</p>	
Impact 3.9-3: Result in erosion or siltation on- or off-site.	Potentially Significant	Implement Mitigation Measures RS-HYD-1.	Less than Significant

Statement of Overriding Considerations

CEQA Guidelines Section 15093 requires the Lead Agency to balance, as applicable, the economic, legal, social, and technological, or other benefits of the project against its unavoidable environmental risks when determining whether to approve the project. No significant and unmitigated impacts have been identified for the proposed project; therefore, the County would not be required to adopt a Statement of Overriding Considerations pursuant to Section 15093 for this project.

Project Alternatives

Alternatives Considered but Rejected

Alternative Site

Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by constructing the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) states that among the factors that may be taken into account when addressing the feasibility of alternative locations are whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).

The proponent does not have control of an alternate site; if control were viable, the proponent would have to re-initiate the application process as a new project. Similar to the proposed project site, an alternate site would require environmental review once the proponent has prepared sufficient project description information. At present, the proponent does not have control of an alternate site. This alternative would be the most complex, costly, and time-consuming alternative to implement. It is unknown if the environmental impacts associated with this Alternative would be less than the proposed project because it would be speculative to evaluate an unsecured alternate site. This is primarily due to the fact that the proponent does not have control of an alternate site. Therefore, an alternative site was eliminated from further consideration in this EIR.

Alternatives Evaluated

Alternative 1: No Project/No Development Alternative

The CEQA Guidelines require analysis of the No Project Alternative (PRC Section 15126). According to Section 15126.6(e)(1), “the specific alternative of ‘no project’ shall also be evaluated along with its impact.” Also, pursuant to Section 15126.6(e)(2); “The ‘no project’ analysis shall discuss the existing conditions at the time the notice of preparation is published, ... at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

The No Project/No Development Alternative assumes that the project, as proposed, would not be implemented and the project site would not be further developed with a solar energy project. The No Project/No Development Alternative would fail to meet any of the project objectives. Additionally, the No Project/No Development Alternative would not help California meet its statutory and regulatory goal of

increasing renewable power generation, including GHG reduction goals of Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006).

Alternative 2: Reduced Project Site

The purpose of this alternative is to reduce the size of the solar facility site to minimize impacts on riparian habitat and jurisdictional resources. There is riparian habitat associated with the detention basins within the solar facility site. Additional riparian habitat is associated with the agricultural drains and roadside ditches. Ephemeral drainages are located throughout the northern portion of the solar facility site.

This alternative would avoid development on portions of the solar facility site where riparian habitat and jurisdictional resources occur. The solar facility site would be reduced by approximately 109 acres from a total of 320 acres to 211 acres. Under this alternative, the gen-tie line alignment would be extended approximately 0.54 miles to the south.

Implementation of the Reduced Project Site Alternative would generally result in reduced impacts to air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems. Alternative 2 would meet most of the basic objectives of the proposed project and should remain under consideration. However, this alternative would make it more difficult to achieve the overall objective of providing a total of 80 MW of renewable solar energy, as there would be less area available for the placement of PV structures.

Environmentally Superior Alternative

Table ES-3 provides a qualitative comparison of the impacts for each alternative compared to the proposed project. The No Project/No Development Alternative would be considered the environmentally superior alternative, since it would eliminate all of the significant impacts identified for the project. However, CEQA Guidelines Section 15126.6(e)(2) states that “if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” As shown in Table ES-3, Alternative 2 would be the environmental superior alternative because it would reduce impacts for the following environmental issue areas as compared to the proposed project: air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems.



Table ES-3. Comparison of Alternative Impacts to Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Aesthetics and Visual Resources	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Air Quality	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Biological Resources	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Cultural Resources	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Geology and Soils	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Similar Impact

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
GHG Emissions	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Hazards and Hazardous Materials	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Hydrology/ Water Quality	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Land Use/Planning	No Impact	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Similar Impact	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Similar Impact
Noise and Vibration	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Public Services	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact



Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Transportation	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Tribal Cultural Resources	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Utilities/Service Systems	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Less Impact

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1 Introduction

This environmental impact report (EIR) has been prepared to meet the requirements of the California Environmental Quality Act (CEQA) for purposes of evaluating the potential environmental impacts, mitigation measures, and alternatives associated with the proposed VEGA SES 6 Solar and Battery Storage Project and Ramon Substation Expansion. This EIR describes the existing environment that would be affected by, and the environmental impacts which could potentially result from the construction and operation of the proposed project as described in detail in Chapter 2.0 of this EIR.

1.1 Overview of the Proposed Project

1.1.1 VEGA 6

The solar energy facility site is located on approximately 320 acres of privately-owned vacant land on a single parcel (Assessor Parcel Number (APN) 034-160-002) in the unincorporated Imperial County, California. The site is located approximately 6 miles south of the southern-most edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. The solar energy facility site is located directly south of Andre Road and 0.50 mile west of the Westside Main Canal.

The solar energy facility site is bound by undeveloped Open Space/Bureau of Land Management (BLM) land immediately to the west and south, and active agricultural land to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the solar energy facility site.

The proposed VEGA 6 project involves the construction and operation of an 80 megawatt (MW) photovoltaic (PV) solar facility with an integrated 160 MW battery storage system (BESS) on approximately 320 acres of privately-owned land. The proposed VEGA 6 project would be comprised of solar PV arrays panels, an on-site substation, BESS, gen-tie line, inverters, transformers, underground electrical cables, and access roads. The proposed gen-tie line would be approximately 4-miles long and would connect to the Imperial Irrigation District's (IID) existing 161 kV "L" transmission line. The entire gen-tie route would be on federal lands managed by BLM within the California Desert Conservation Area planning area.

1.1.2 Ramon Substation Expansion

Energy generated by the VEGA 6 project will be transmitted to IID's existing 161 kV "L" Line, with ultimate delivery to IID's Ramon Substation in Riverside County. IID has identified that upgrades to the Ramon Substation will be required in order to accommodate several planned utility-scale projects, including the VEGA 6 project. Upgrades to the Ramon Substation would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. The proposed upgrades to the Ramon Substation are necessary infrastructure improvements to accommodate several planned utility-scale projects, including the VEGA 6 project, to connect to the IID grid. Because it is a necessary infrastructure improvement to allow the VEGA 6 project to connect to the IID grid, the Ramon Substation expansion is considered a connected project for the purposes of CEQA review.

The existing Ramon Substation is located on a single parcel (APN 651-230-015) in unincorporated Riverside County, generally northeast of Cathedral City, north of the Interstate-10 Freeway. The

existing substation currently occupies approximately 6.7 acres of the 11.26-acre parcel. The proposed upgrades would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. Immediately west of the existing Ramon Substation and proposed expansion area is the existing Southern California Edison Mirage Substation. Access to the existing substation is provided by Ramon Road, which is immediately south of the existing substation.

1.1.3 Agency Roles and Responsibilities

County of Imperial

The following are the primary discretionary approvals required for implementation of the project:

1. **General Plan Amendment #22-001.** An amendment to the County's General Plan, Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the Renewable Energy (RE) Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. The project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the project site (APN No. 034-160-002) into the RE Overlay Zone. No change in the underlying General Plan land use (Agriculture) is proposed.
2. **Zone Change #22-0001.** The project site is currently zoned Open Space/Preservation (S-2). The applicant is requesting a Zone Change to include/classify the project site (APN No. 034-160-002) into the RE Overlay Zone to allow for solar and battery storage development.
3. **Approval of CUP #22-0005.** Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated BESS. The project site is located on one privately-owned legal parcel zoned Open Space/Preservation (S-2). Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:
 - d) *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
 - i) *Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:*
 - *Electrical generation plants*
 - *Facilities for the transmission of electrical energy (100-200 kV)*
 - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*
4. **Approval of CUP (CUP 22-0027) – Groundwater Well.** Pursuant to Title 9 Division 21: Water Well Regulations, §92102.00, the Applicant will be required to obtain a CUP for the proposed on-site groundwater well. As required by §92102.00, no person shall (1) drill a new well, (2) activate a previously drilled but unused well, (unused shall mean a well or wells that have not



been used for a 12 month) period by installing pumps, motors, pressure tanks, piping, or other equipment necessary or intended to make the well operational, (3) increase the pumping capacity of a well, or (4) change the use of a well, without first obtaining a CUP through the County Planning & Development Services Department.

5. **Certification of the EIR.** After the required public review for the Draft EIR, the County will respond to written comments, edit the document, and produce a Final EIR to be certified by the Planning Commission and Board of Supervisors prior to making a decision on approval or denial of the project.

Subsequent ministerial approvals may include, but are not limited to:

- Grading and clearing permits
- Building permits
- Reclamation plan
- Encroachment permits
- Transportation permit(s)

Discretionary Actions and Approvals by Other Agencies

Responsible Agencies are those agencies that have discretionary approval over one or more actions involved with development of the project. Trustee Agencies are state agencies that have discretionary approval or jurisdiction by law over natural resources affected by a project.

- **Imperial Irrigation District (IID) (CEQA Responsible Agency).** The IID is a Responsible Agency as defined by CEQA Guideline Section 15381 as it relates to the proposed Ramon Substation improvements. In this capacity, the IID has the discretionary authority to approve improvements to the existing Ramon Substation, and would utilize the information contained in this EIR, as prepared by the County of Imperial as the CEQA Lead Agency, as the CEQA clearance for the substation improvements.
- **Bureau of Land Management (BLM) (National Environmental Policy Act – Federal Lead Agency).** Right-of-way grant for the off-site gen-tie line to be located on federal lands under the jurisdiction of the BLM. The proposed ROW would be 60-feet-wide.
- **County of Riverside.** The Ramon Substation expansion area is zoned General Residential Zone (R-3) in the Riverside County Zoning Ordinance. The Riverside County Zoning Ordinance does not identify public utilities as a permitted or conditional use in R-3. However, per Section 17.208.010, facilities for the storage or transmission of electrical energy is permitted with a Public Use Permit:

Facilities for the storage or transmission of electrical energy where the County is not preempted by law from exercising jurisdiction. This subsection shall take precedence over and supersede any conflicting provision in any zone classification. Facilities for the storage or transmission of electrical energy shall not be subject to the development standards of the zone classification in which they are located.

The existing Ramon Substation is currently operating under an approved Public Use Permit. IID would apply for an amendment to its Public Use Permit for the proposed Ramon Substation expansion.

Other Agencies Reviews and/or Consultations

The following agencies may be involved in reviewing and/or consultations with the project proponent as it relates to construction of the project:

Federal

UNITED STATES FISH AND WILDLIFE SERVICE

- The United States Fish and Wildlife Service (USFWS) enforces compliance with regulations related to special-status species or their habitat as required under the Federal Endangered Species Act (ESA).

UNITED STATES ARMY CORPS OF ENGINEERS

- Section 404 Permit (Clean Water Act [CWA]). The CWA establishes a program to regulate the discharge of dredge and fill material into waters of the U.S. including wetlands. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual 404b permit or authorization to use an existing USACE Nationwide Permit will need to be obtained if any portion of the construction requires fill into a river, stream, or stream bed that has been determined to be a jurisdictional waterway.

State

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (TRUSTEE AGENCY)

- The California Department of Fish and Wildlife (CDFW) is a Trustee Agency and enforces compliance with regulations related to California special-status species or their habitats as required under the California Endangered Species Act (CESA).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

- **National Pollution Discharge Elimination System Construction General Permit Order No. 2009-009-DWQ.** Requires the applicant to file a public Notice of Intent to discharge stormwater and to prepare and implement a stormwater pollution prevention plan (SWPPP).
- **Jurisdictional Waters.** Agencies and/or project proponents must consult with the California Regional Water Quality Control Board (RWQCB) regarding, when applicable, regarding compliance with the CWA Section 401 Water Quality Certification or permitting under California Porter-Cologne Act.

Local

IMPERIAL COUNTY FIRE DEPARTMENT

- Review as part of the EIR process including the final design of the proposed fire system.

IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT

- Review as part of the EIR process regarding consistency with the Imperial County Air Pollution Control District (ICAPCD) CEQA Air Quality Handbook, the final "Modified" 2009 8-hour Ozone Air Quality Management Plan, the State Implementation Plan for particulate matter less than



10 microns in diameter (PM_{10}) in the Imperial Valley, the State Implementation Plan (SIP) for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and verification of Rule 801 compliance.

1.2 Relationship to Statutes, Regulations, and Other Plans

1.2.1 County of Imperial General Plan and Land Use Ordinance

The General Plan provides guidance on future growth in the County of Imperial. Any development in the County of Imperial must be consistent with the General Plan and Land Use Ordinance (Title 9, Division 10).

1.2.2 County of Riverside General Plan

The County of Riverside General Plan is a policy document that reflects the County's vision for the future of Riverside County. The General Plan was comprehensively revised in 2003 and most recently updated in 2021. In addition, the General Plan divides the County into 19 Area Plans. The purpose of these Area Plans is to provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The Ramon Substation expansion area is located within the Western Coachella Valley Area Plan (WCVAP) of the General Plan.

1.2.3 Western Coachella Valley Area Plan

The Ramon Substation expansion area is located within the WCVAP of the General Plan. The WCVAP is not a standalone document, but rather an extension of the County of Riverside General Plan. It provides a customized direction specifically for this planning area. The WCVAP provides a description of the location, physical characteristic, and special features, in addition to a land use plan, policies, and exhibits to better understand the physical, environmental, and regulatory characteristics that comprise the area.

1.2.4 Renewables Portfolio Standard Program

Established in 2002 under Senate Bill (SB) 1078, California's Renewables Portfolio Standard (RPS) was accelerated in 2006 under SB 107 by requiring that 20 percent of electricity retail sales be served by RE resources by 2010. RE sources include wind, geothermal, and solar. Subsequent recommendations in California energy policy reports advocated a goal of 33 percent by 2020. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order (EO) S-14-08 requiring that "... all retail sellers of electricity shall serve 33 percent of their load with RE by 2020." The following year, EO S-21-09 directed the California Air Resources Board (CARB), under its Assembly Bill (AB) 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020.

In the ongoing effort to codify the ambitious 33 percent by 2020 goal, SB X12 was signed by Governor Brown, in April 2011. This new RPS preempts the CARB's 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities had to adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

Governor Brown signed into legislation SB 350 in October 2015, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible RE resources by 2030. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

1.2.5 Senate Bill 32

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by Executive Order (EO) B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

1.2.6 Title 17 California Code of Regulations, Subchapter 10, Article 2, Sections 95100 et seq.

These CARB regulations implement mandatory GHG emissions reporting as part of the California Global Warming Solutions Act of 2006.

1.2.7 Federal Clean Air Act

The legal authority for federal programs regarding air pollution control is based on the 1990 Clean Air Act (CAA) Amendments. These are the latest in a series of amendments made to the CAA. This legislation modified and extended federal legal authority provided by the earlier Clean Air Acts of 1963, 1970, and 1977.

The Air Pollution Control Act of 1955 was the first Federal legislation involving air pollution. This Act provided funds for federal research in air pollution. The CAA of 1963 was the first Federal legislation regarding air pollution control. It established a federal program within the U.S. Public Health Service and authorized research into techniques for monitoring and controlling air pollution. In 1967, the Air Quality Act was enacted in order to expand Federal government activities. In accordance with this law, enforcement proceedings were initiated in areas subject to interstate air pollution transport. As part of these proceedings, the Federal government for the first time conducted extensive ambient monitoring studies and stationary source inspections.

The Air Quality Act of 1967 also authorized expanded studies of air pollutant emission inventories, ambient monitoring techniques, and control techniques.

1.2.8 Imperial County Air Pollution Control District

The ICAPCD enforces rules and regulations regarding air emissions associated with various activities, including construction and farming, and operational activities associated with various land uses, in order to protect the public health.

1.2.9 Federal Clean Water Act (33 United States Code Section 1251-1387)

The Federal Water Pollution Control Act (33 United States Code [USC] §§1251-1387), otherwise known as the CWA, is a comprehensive statute aimed at restoring and maintaining the chemical, physical and biological integrity of the nation's waters. Enacted originally in 1948, the Act was amended numerous times until it was reorganized and expanded in 1972. It continues to be amended almost every year. Primary authority for the implementation and enforcement of the CWA rests with the U.S. Environmental Protection Agency (EPA). In addition to the measures authorized before 1972, the Act authorizes water quality programs, requires federal effluent limitations and state water quality standards, requires permits for the discharge of pollutants into navigable waters, provides enforcement mechanisms, and authorizes funding for wastewater treatment works construction grants and state revolving loan programs, as well as funding to states and tribes for their water quality programs. Provisions have also been added to address water quality problems in specific regions and specific waterways.

Important for wildlife protection purposes are the provisions requiring permits to dispose of dredged and fill materials into navigable waters. Permits are issued by the United States Army Corps of Engineers (USACE) under guidelines developed by EPA pursuant to Section 404 of the CWA.

1.2.10 Federal Clean Water Act and California Porter-Cologne Water Quality Control Act

The project is located within the Colorado River Basin RWQCB, Region 7. The CWA and the California Porter-Cologne Water Quality Control Act require that Water Quality Control Plans (more commonly referred to as Basin Plans) be prepared for the nine state-designated hydrologic basins in California. The Basin Plan serves to guide and coordinate the management of water quality within the region.

1.2.11 Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) is a federal law that governs the way in which the public lands administered by the BLM are managed. The act set out a multiple use management policy for the BLM in which the agency would balance its management of the land to meet diverse needs, including recreation, grazing, timber and mineral production, fish and wildlife protection, and oil and gas production.

BLM is authorized to grant, issue or renew rights-of-way (ROW) over, upon, under, or through public lands. A ROW grant is an authorization to use a specific piece of public land for a certain project, such as roads, pipelines, transmission lines, and communication sites. A ROW grant authorizes rights and privileges for a specific use of the land for a specific period of time. The proposed right-of-way request associated with the project is subject to review and approval by the BLM.

1.2.12 California Desert Conservation Area Plan

Section 601 of the FLMPA required preparation of a long-range plan for the California Desert Conservation Area (CDCA). The CDCA Plan was adopted in 1980 to provide for the use of public lands and resources of the CDCA in a manner which enhances wherever possible and, which does not diminish, on balance, the environmental, cultural, and aesthetic values of the Desert and its productivity. The CDCA Plan is a comprehensive, long-range plan covering 25 million-acres. Approximately 12 million acres of this total are public lands administered by the BLM on behalf of the

CDCA. These public lands are dispersed throughout the California Desert which includes the Mojave Desert, the Sonoran Desert and a small portion of the Great Basin Desert. The 12 million acres of public lands administered by the BLM make-up approximately half of the CDCA. The CDCA is applicable to the federal (i.e., BLM) actions associated with implementation of the proposed project (the portion of the project [gen-tie line] not otherwise located on private lands).

1.2.13 Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) created a Land Use Plan Amendment to the CDCA Plan. The DRECP has been developed as an interagency plan by the BLM, the U.S. Fish and Wildlife Service (USFWS), the California Energy Commission (CEC), and the California Department of Fish and Wildlife (CDFW) to (1) advance federal and state natural resource conservation goals and other federal land management goals; (2) meet the requirements of the federal Endangered Species Act, California Endangered Species Act, Natural Community Conservation Planning Act, and FLPMA; and (3) facilitate the timely and streamlined permitting of renewable energy projects, all in the Mojave and Colorado/Sonoran desert regions of Southern California.

1.2.14 Federal Endangered Species Act

The ESA (16 USC 1531-1544) provides protection for plants and animals whose populations are dwindling to levels that are no longer sustainable in the wild. The Act sets out a process for listing species, which allows for petition from any party to list a plant or animal. Depending on the species, USFWS or the National Marine Fisheries Service (NMFS) will determine whether listing the species is warranted. If it is warranted, the species will be listed as either threatened or endangered. The difference between the two categories is one of degree, with endangered species receiving more protections under the statute.

1.2.15 National Historic Preservation Act

Federal regulations (36 Code of Federal Regulations [CFR] Part 800.2) define historic properties as "any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion in, in the National Register of Historic Places (NRHP)." The term "cultural resource" is used to denote a historic or prehistoric district, site, building, structure, or object, regardless of whether it is eligible for the NRHP.

1.2.16 California Endangered Species Act

CESA is enacted through Government Code Section 2050. Section 2080 of the California Fish and Game Code (FGC) prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the FGC as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

CESA allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species populations and their essential habitats.



1.2.17 California Lake and Streambed Program (Fish and Game Code Section 1602)

CDFW is responsible for conserving, protecting, and managing California’s fish, wildlife, and native plant resources. To meet this responsibility, the FGC (Section 1602) requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake.

1.3 Purpose of an EIR

The purpose of an EIR is to analyze the potential environmental impacts associated with a project. CEQA (Section 15002) states that the purpose of CEQA is to: (1) inform the public and governmental decision makers of the potential, significant environmental impacts of a project; (2) identify the ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and (4) disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

1.4 EIR Process

1.4.1 Availability of Reports

This Draft EIR has been distributed to various federal, state, regional, local agencies and interested parties for a 50-day public review period, from February 26, 2024 to April 16, 2024, in accordance with Section 15087 of the CEQA Guidelines. This Draft EIR and documents incorporated by reference are available for public review at the County of Imperial Planning and Development Services Department, 801 Main Street, El Centro, California 92243. Documents may be reviewed during regular business hours.

David Black, Planner IV

County of Imperial, Planning and Development Services Department

801 Main Street

El Centro, California 92243

Comments received during the public review period of the Draft EIR will be reviewed and responded to in the Final EIR. The Final EIR will then be reviewed by the Imperial County Planning Commission and Board of Supervisors as a part of the procedure to certify the EIR. Additional information on this process may be obtained by contacting the County of Imperial Planning and Development Services Department at (442) 265-1736.

1.4.2 Public Participation Opportunities/Comments and Coordination

Notice of Preparation

The County of Imperial issued a notice of preparation (NOP) for the preparation of an EIR for the VEGA SES 6 Solar and Battery Storage Project on July 11, 2022. The NOP was distributed to city, county, state, and federal agencies, other public agencies, and various interested private organizations and individuals in order to define the scope of the EIR. The NOP was also published in

the Imperial Valley Press on July 10, 2022. The purpose of the NOP was to identify public agency and public concerns regarding the potential impacts of the project, and the scope and content of environmental issues to be addressed in the EIR. Correspondence in response to the NOP was received from the following entities and persons:

- Imperial Irrigation District
- California Department of Transportation, District 11
- Defenders of Wildlife
- Imperial County Air Pollution Control District

The comments submitted on the NOP during the public review and comment period are included as Appendix A to this EIR.

Scoping Meeting and Environmental Evaluation Committee

During the NOP public review period, the VEGA SES 6 Solar and Battery Storage Project was discussed as an informational item at the County's Environmental Evaluation Committee meeting on July 28, 2022.

Additionally, a virtual scoping meeting for the general public as well public agencies was held on July 28, 2022, at 6:00 p.m., to further obtain input as to the scope of environmental issues to be examined in the EIR. The NOP, which included the scoping meeting date and location, was published in the Imperial Valley Press on July 10, 2022. A virtual meeting was held by the Imperial County Planning & Development Services Department. At the scoping meeting, members of the public were invited to ask questions regarding the proposed project and the environmental review process, and to comment both verbally and in writing on the scope and content of the EIR.

1.4.3 Environmental Topics Addressed

Based on the analysis presented in the NOP and the information provided in the comments to the NOP, the following environmental topics are analyzed in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- GHG Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise and Vibration
- Public Services (Fire Protection and Police Protection)
- Transportation

- Tribal Cultural Resources
- Utilities/Service Systems (Water Supply)

Eliminated from Further Review in Notice of Preparation

The initial study (IS)/NOP completed by the County (Appendix A of this EIR) determined that environmental effects to Agriculture and Forestry Resources, Energy, Mineral Resources, Population/Housing, Public Services, Recreation, Utilities (Wastewater, Stormwater, and Solid Waste), and Wildfire would not be potentially significant. Therefore, these impacts are not addressed in this EIR; however, the rationale for eliminating these issues is discussed in Chapter 6.0, Effects Found Not Significant.

1.4.4 Areas of Controversy and Issues to be Resolved

Section 15123(b)(2) of the CEQA Guidelines requires that an EIR identify areas of controversy known to the Lead Agency, including issues raised by other agencies and the public as well as issues to be resolved. A primary issue associated with this solar farm project, and other solar facility projects that are proposed in the County, is the corresponding land use compatibility and fiscal/economic impacts to the County. Through the environmental review process for this project, other areas of concern and issues to be resolved include potential impacts related to the conversion of farmland to non-agricultural uses, damage to crops, wildlife, water supply, fire hazards associated with the battery energy storage system, health effects from air pollution, noise and hazardous materials, and change of visual character.

1.4.5 Document Organization

The structure of the Draft EIR is identified below. The Draft EIR is organized into 10 chapters.

- The **Executive Summary** provides a summary of the proposed project, including a summary of project impacts, mitigation measures, and project alternatives.
- **Chapter 1 Introduction** provides a brief introduction of the proposed project; relationship to statutes, regulations and other plans; the purpose of an EIR; public participation opportunities; availability of reports; and comments received on the NOP.
- **Chapter 2 Project Description** provides a description of the VEGA SES 6 Solar and Battery Storage Project and Ramon Substation Expansion. This chapter also defines the goals and objectives of the proposed project, provides details regarding the individual components that together comprise the project, and identifies the discretionary approvals required for implementation of the project.
- **Chapter 3 Environmental Analysis** provides a description of the existing environmental setting and conditions, an analysis of the environmental impacts of the project for the following environmental issues: aesthetics; agricultural resources; air quality; biological resources; cultural resources (includes tribal cultural resources); geology and soils; GHG emissions; hazards and hazardous materials; hydrology/water quality; land use and planning; noise and vibration; public services; recreation; transportation/traffic; and utilities/service systems. This chapter also identifies mitigation measures to address potential impacts to the environmental issues identified above.

- **Chapter 4 Analysis of Long-Term Effects** provides an analysis of growth inducing impacts, significant irreversible environmental changes, and unavoidable adverse impacts.
- **Chapter 5 Cumulative Impacts** discusses the impact of the proposed project in conjunction with other planned and future development in the surrounding areas.
- **Chapter 6 Effects Found Not to be Significant** lists all the issues determined to not be significant as a result of the preparation of this EIR.
- **Chapter 7 Alternatives** analyzes the alternatives to the proposed project.
- **Chapter 8 References** lists the data references utilized in preparation of the EIR.
- **Chapter 9 EIR Preparers and Organizations Contacted** lists all the individuals and companies involved in the preparation of the EIR, as well as the individuals and agencies consulted and cited in the EIR.

2 Project Description

Chapter 2 provides a description of the VEGA SES 6 Solar and Battery Storage Project (VEGA 6). This chapter also defines the goals and objectives of the proposed VEGA 6 project, provides details regarding the individual components that together comprise the project, and identifies the discretionary approvals required for project implementation.

Apex Energy Solutions, LLC (Applicant) is requesting approval of a General Plan amendment, zone change, and conditional use permit (CUP) to allow for the construction and operation of a solar energy facility with an integrated battery energy storage system. The proposed VEGA 6 project consists of three primary components: 1) an 80 megawatt (MW) solar energy generation equipment and associated facilities including a substation and access roads (herein referred to as “solar energy facility”); 2) a 160 MW battery energy storage system (BESS); and, 3) electrical generator intertie (gen-tie) transmission line to connect to the Imperial Irrigation District’s (IID) 161 kilovolt (kV) “L” Line.

Energy generated by the VEGA 6 project will be transmitted to IID’s existing 161 kV “L” Line, with ultimate delivery to IID’s Ramon Substation in Riverside County. IID has identified that upgrades to the Ramon Substation will be required in order to accommodate several planned utility-scale projects, including the VEGA 6 project. Upgrades to the Ramon Substation would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. The proposed upgrades to the Ramon Substation are necessary infrastructure improvements to accommodate several planned utility-scale projects, including the VEGA 6 project, to connect to the IID grid. Because it is a necessary infrastructure improvement to allow the VEGA 6 project to connect to the IID grid, the Ramon Substation expansion is considered a connected project for the purposes of CEQA review. Therefore, this EIR evaluates the potential environmental impacts of the proposed expansion of the Ramon Substation.

2.1 Project Location

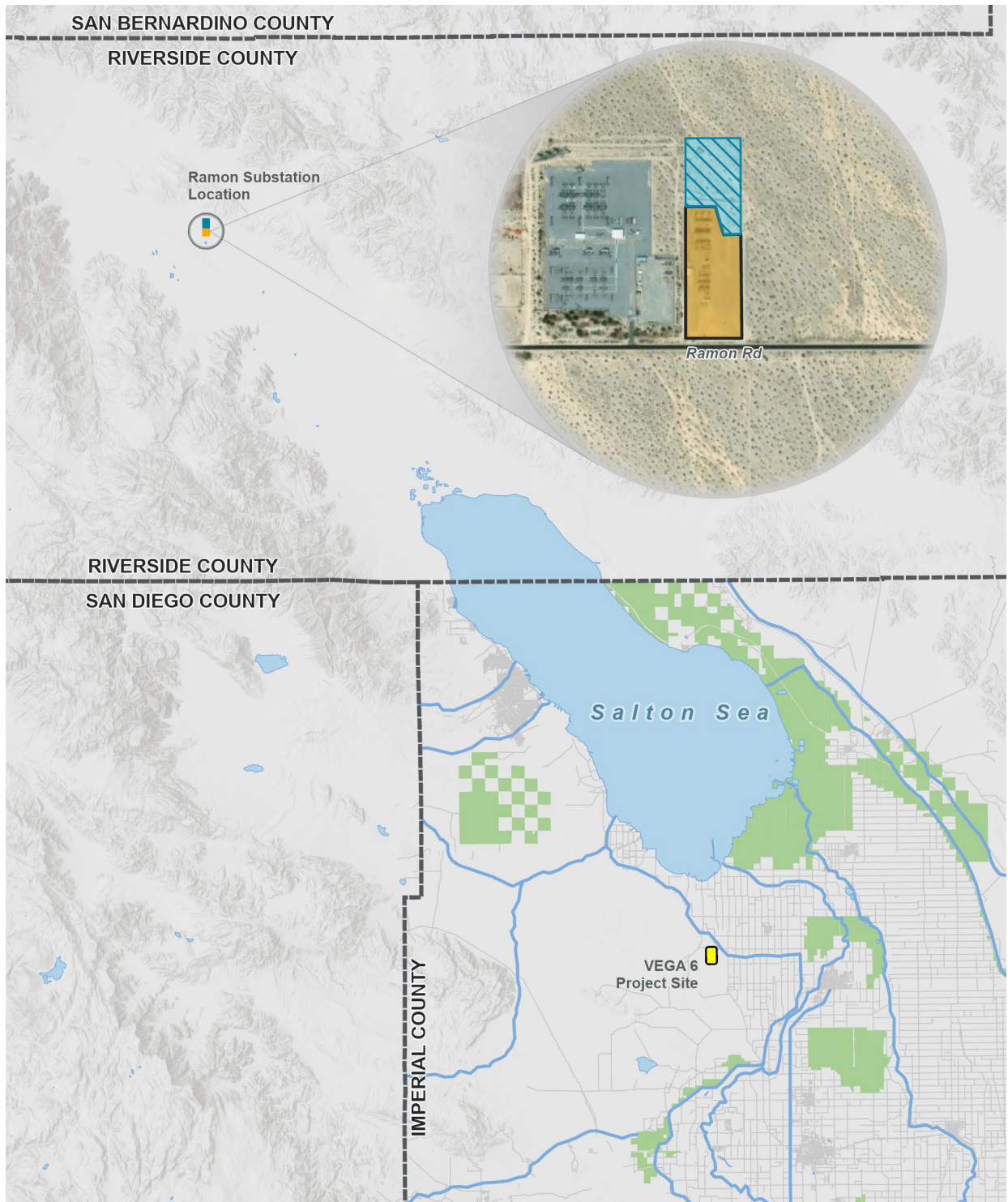
2.1.1 Solar Energy Facility

The solar energy facility site is located on approximately 320 acres of privately-owned vacant land on a single parcel (Assessor Parcel Number (APN) 034-160-002) in the unincorporated Imperial County, California (Figure 2-1). The site is located approximately 6 miles south of the southern-most edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. The solar energy facility site is located directly south of Andre Road and 0.50 mile west of the Westside Main Canal (Figure 2-2).





The topography of the solar energy facility site is relatively flat, with elevations ranging between -39 meters (-129 feet) and -6 meters (-21 feet). The solar energy facility site is bound by undeveloped Open Space/Bureau of Land Management (BLM) land immediately to the west and south, and active agricultural land to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the solar energy facility site.

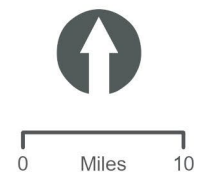
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Figure 2-1. Regional Location



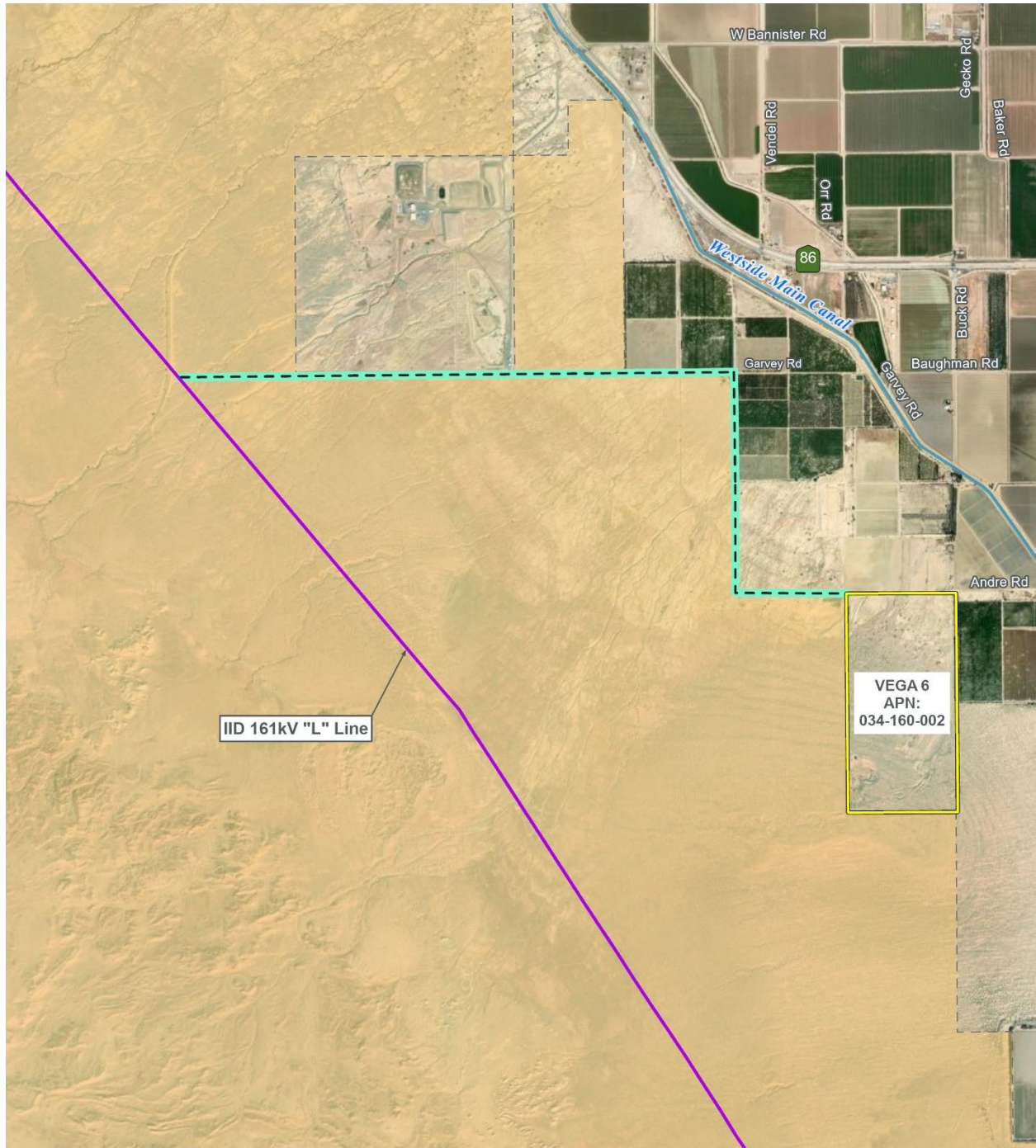
LEGEND

-  Existing Ramon Substation
-  Ramon Substation Expansion Area
-  VEGA 6 Project Site – Solar Energy Facility
-  Renewable Energy Overlay Zone



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Figure 2-2. VEGA 6 Project Site



- VEGA 6 Project Site – Solar Energy Facility
- BLM Land
- IID 161kV "L" Line (Existing IID Line)
- Gen-Tie (Proposed VEGA 6 Gen-Tie)
- 60-ft Right of Way Required in BLM Land (TYP)



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2.1.2 Battery Energy Storage System

As depicted in Figure 2-3, the project includes a BESS, which is proposed to be located in the northwest portion of the solar energy facility site.

2.1.3 Gen-Tie Line

The proposed project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the Bureau of Land Management (BLM) within the California Desert Conservation Area (CDCA) planning area. As shown in Figure 2-4, the gen-tie route begins at the northwest corner of the solar facility site, heads west approximately 0.5 miles on BLM land, then north for approximately 1 mile, and then west for 2.5 miles along Garvey Road where it would connect to the IID 161 kV "L" Line.

2.1.4 Renewable Energy Overlay Zone

In 2016, the County adopted the Imperial County Renewable Energy and Transmission Element, which includes an RE Zone (RE Overlay Map). This General Plan element was created as part of the California Energy Commission Renewable Energy Grant Program to amend and update the County's General Plan to facilitate future development of renewable energy projects.

The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

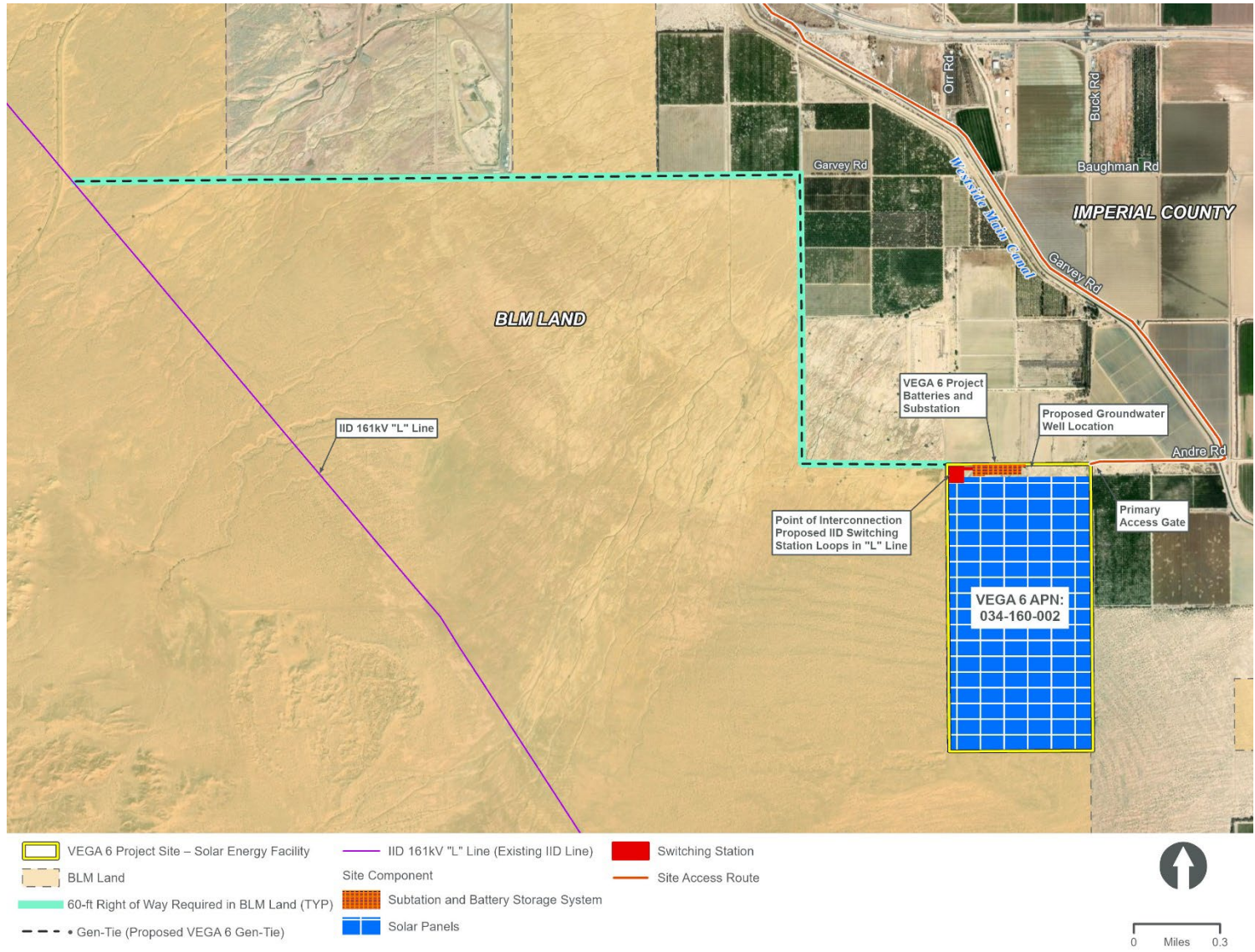
As shown on Figure 2-1, the entire project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the project site (APN No. 034-160-002) into the RE Overlay Zone. No change in the underlying General Plan land use (Agriculture) is proposed.

2.1.5 Ramon Substation Expansion

The existing Ramon Substation is located on a single parcel (APN 651-230-015) in unincorporated Riverside County, generally northeast of Cathedral City, north of the Interstate-10 Freeway. The existing substation currently occupies approximately 6.7 acres of the 11.26-acre parcel. As shown in Figure 2-5, the proposed upgrades would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation within APN 651-230-015. Immediately west of the existing Ramon Substation and proposed expansion area is the existing SCE Mirage Substation. Access to the existing substation is provided by Ramon Road, which is immediately south of the existing substation.

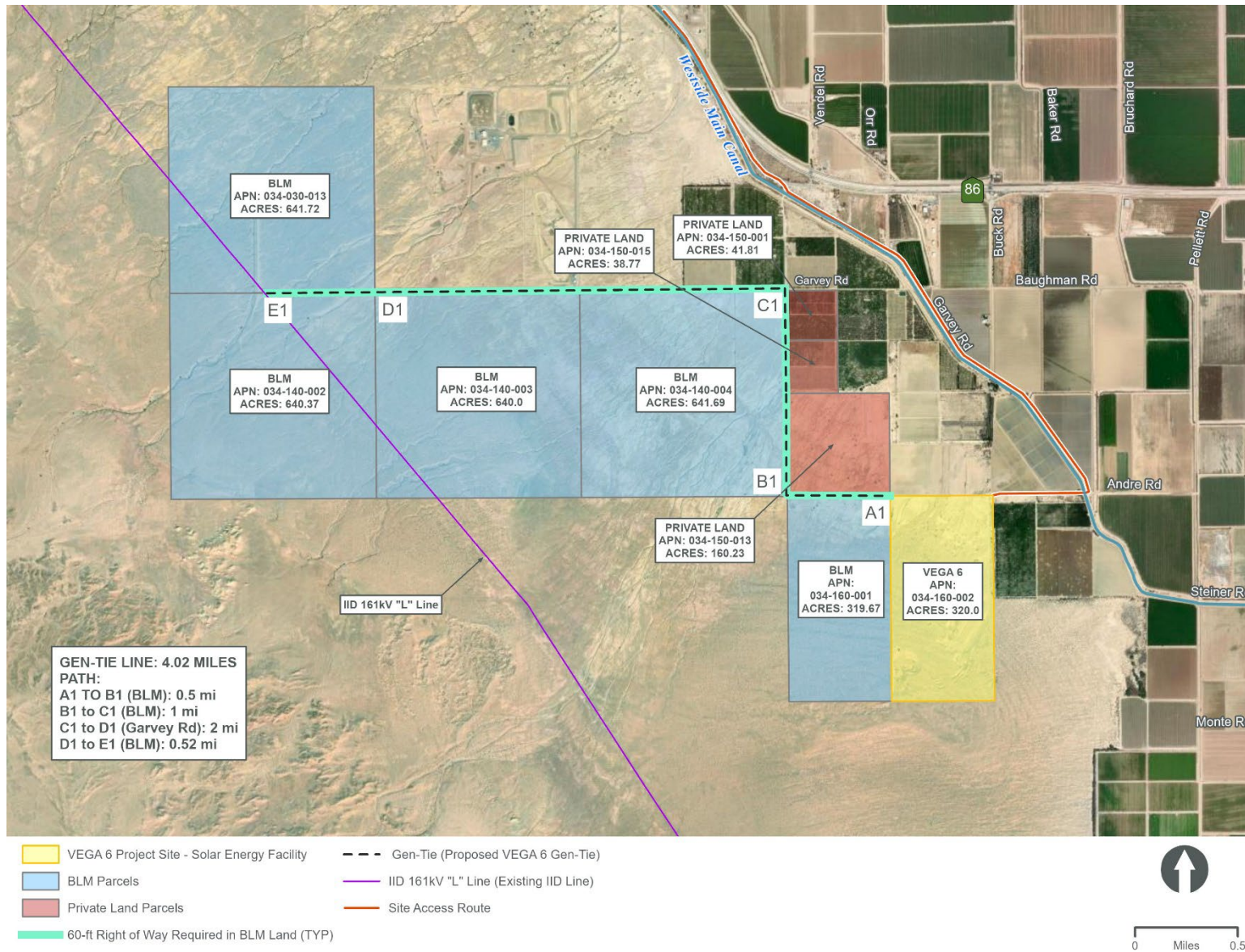
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Figure 2-3. VEGA 6 Site Plan



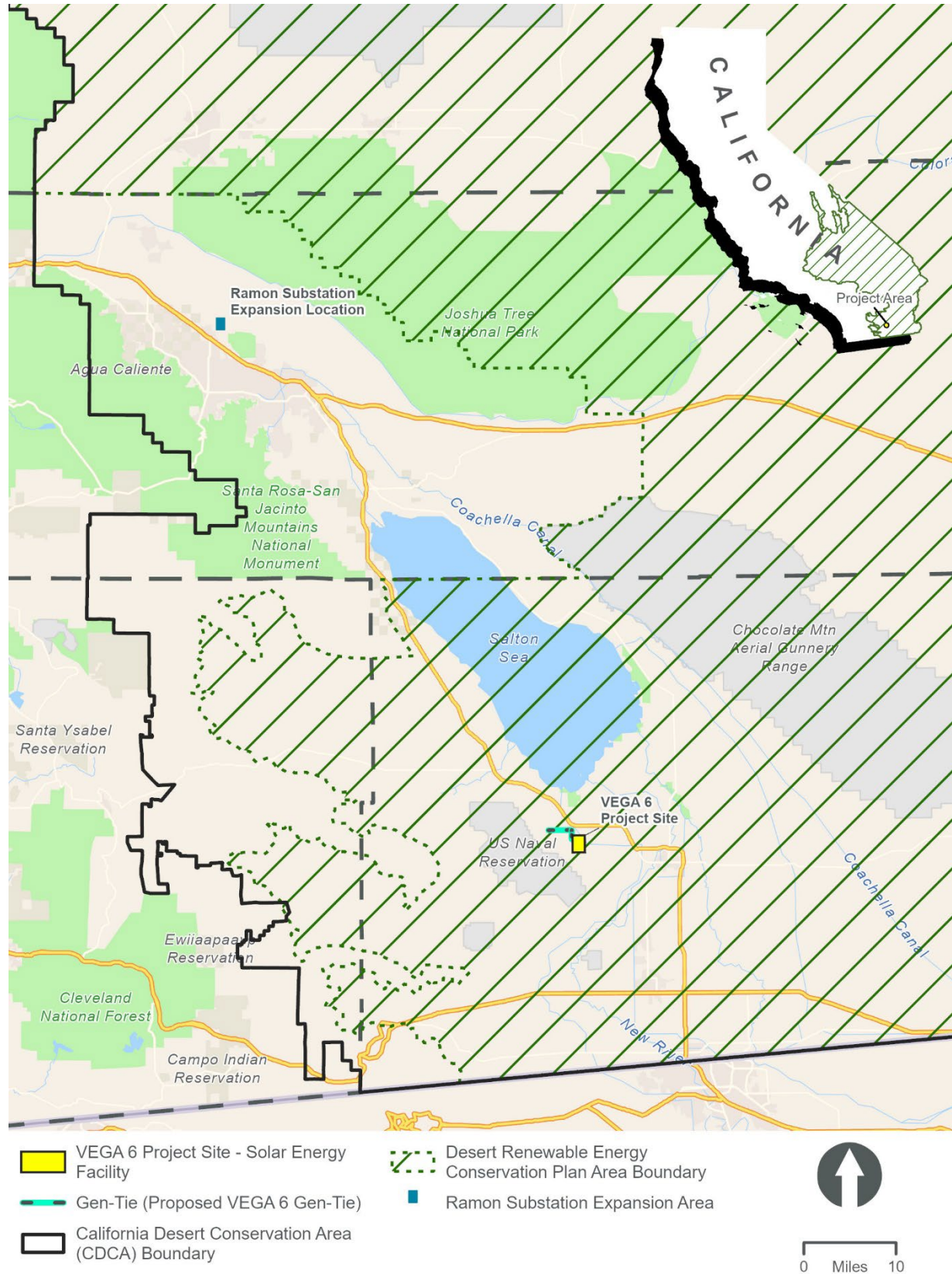
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Figure 2-4. VEGA 6 Gen-Tie Route



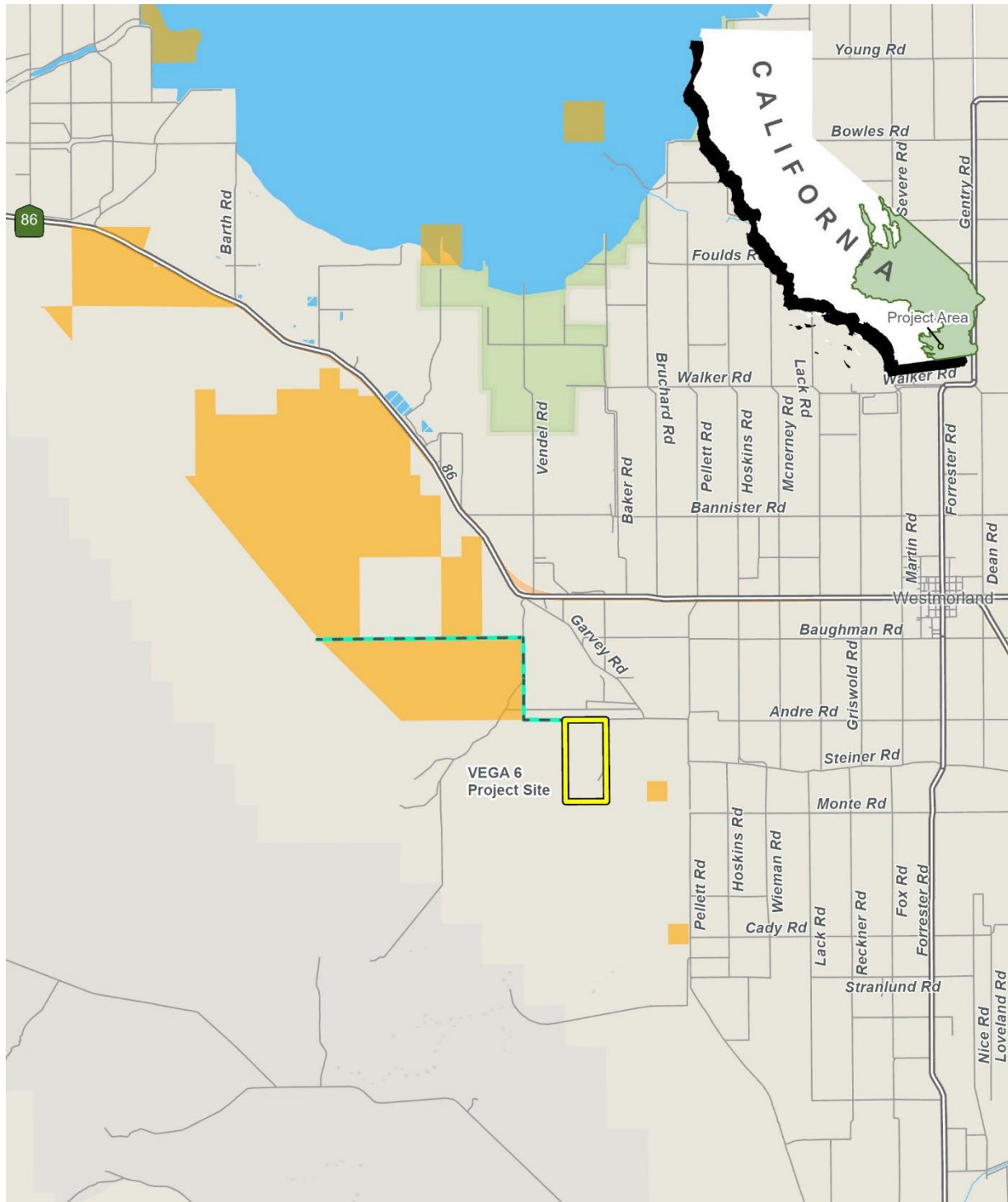
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Figure 2-5. CDCA and DRECP Planning Areas

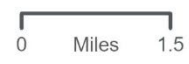


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Figure 2-6. DRECP Renewable Energy Development Focus Areas



-  VEGA 6 Project Site – Solar Energy Facility
-  Gen-Tie (Proposed VEGA 6 Gen-Tie)
- Renewable Energy Development Designation**
-  Development Focus Areas



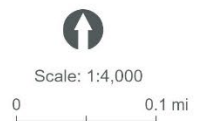
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Figure 2-7. Ramon Substation Expansion Area Location



LEGEND

- Existing SCE Mirage Substation
- Existing Ramon Substation
- Proposed Expansion Area (4.0 acres)
- Parcel Boundary



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2.2 Project Objectives

- Construct and operate a solar energy facility capable of producing up to 80 MW alternating current (AC) of electricity to assist the State of California in achieving its 60 percent renewable portfolio standard by 2030.
- Provide a 160 MW energy (battery storage) system, that would accommodate and store the power generated by the project so that the facility can continue to provide renewable energy during non-daylight hours.
- Help California meet its statutory and regulatory goal of increasing renewable power generation, including greenhouse gas reduction goals of Senate Bill 32.
- Interconnect directly to IID's existing electrical transmission system.
- Minimize and mitigate any potential impact to sensitive environmental resources within the project area.

2.3 VEGA 6 Characteristics

The proposed VEGA 6 project involves the construction and operation of a 80 MW photovoltaic (PV) solar facility with an integrated 160 MW BESS on approximately 320 acres of privately-owned land. The proposed VEGA 6 project would be comprised of solar PV arrays panels, an on-site substation, BESS, gen-tie line, inverters, transformers, underground electrical cables, and access roads. These project components are described in detail below and depicted in Figure 2-3.

2.3.1 Photovoltaic Panels/Solar Arrays

The VEGA 6 project proposes to use either thin film or crystalline solar PV technology modules mounted either on fixed frames or horizontal single-axis tracker (HSAT) systems. The fixed-frame PV module arrays would be mounted on racks that would be supported by driven piles. The fixed-frame racks would be secured at a fixed tilt of 20 to 30 degrees from horizontal facing a southerly direction. As proposed, individual PV modules would be mounted two high on a fixed frame, providing 12 to 24 inches of ground clearance and resulting in the tops of the panels at approximately 7.5 feet above the ground. The fixed PV modules would be arranged in arrays spaced approximately 15 to 25 feet apart (pile-to-pile) to maximize performance and to allow access for panel cleaning. These arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide interior roads.

If HSAT technology is used, the PV modules would rotate around the north-south HSAT axis so that the PV modules would continue to face the sun as the sun moves across the sky throughout the day. The PV modules would reach their maximum height (up to 9 feet above the ground, depending on the final design) at both sunrise and sunset, when the HSAT is rotated to point the modules at the rising or setting sun. At noon, or when stowed during high winds, when the HSAT system is rotated so that the PV modules are horizontal, the nominal height would be about 6 feet above the ground, depending on the final design. The individual PV systems would be arranged in large arrays by placing them in columns spaced approximately 10 feet apart to maximize operational performance and to allow access for panel cleaning and maintenance. Individual HSAT PV modules, each approximately 2 feet wide by 4 feet long (depending on the specific PV technology selected), would be mounted on a frame which is attached to an HSAT system. These HSAT arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide roads, consistent with County emergency access requirements.

2.3.2 Battery Energy Storage System

The proposed BESS would be constructed adjacent to the project's substation and would consist of either lithium ion or flow batteries. The batteries will either be housed in storage containers or buildings fitted with heating, ventilation, and air conditioning and fire suppression systems. Inside the housing, the batteries will be placed on racks, the orientation of which depends on the type of housing. Underground trenches with conduits will be used to connect the batteries to the control and monitoring systems, and inverters to convert the PV-produced direct current (DC) power to alternating current (AC) power. The BESS would be capable of storing up to 160 MW. Figure 2-6 depicts representative examples of a typical BESS.

2.3.3 Interconnection Facilities

As shown in Figure 2-3, a new substation would be constructed in the northwest portion of the solar energy facility site. The inverters would be connected to pad-mounted transformers to raise the voltage from 385V to the 34.5 kV voltage level of the collector system inside the project substation. This system collects the energy from all the inverters and then transmits it through a generator step-up transformer, which steps up the voltage level to the 161 kV of the existing IID "L" line.

A new interconnection switching station would be constructed in the northwest corner of the solar energy facility site, immediately adjacent to the substation. The switching station would include circuit breakers, switches, overhead bus work, protective relay equipment and an electrical control building. The switching station would operate at 161 kV and be equipped with two circuit breakers, allowing for looping in of the IID 161 kV "L" transmission line as well as connection to the project's gen-tie line. The substation and switching station would be connected via a single overhead 161 kV line. The switching station would be enclosed within its own fence.

The medium voltage power produced by the VEGA 6 project would be conveyed underground, or aboveground where necessary to cross over any sensitive site features, to connect to the project's interconnection facilities. The project's interconnection facilities design would meet all necessary utility standards and requirements. As required, surge arrestors would be used to protect facilities and auxiliary equipment from lightning strikes or other disturbances. Distribution from the site would be via an overhead connection.

Figure 2-8. Representative Example of Battery Energy Storage Systems



2.3.4 Gen-Tie Line

The proposed VEGA 6 project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the BLM within the California Desert Conservation Area (CDCA) planning area. As shown in Figure 2-4, the gen-tie route begins at the northwest corner of the solar facility site, heads west approximately 0.5 miles on BLM land, then north for approximately 1 mile, and then west for 2.5 miles along Garvey Road where it would connect to IID's 161 kV "L" Line.

The 4-mile gen-tie line would include a total of 77 pole structures, with a combination of tangent double circuit wood pole structures (Figure 2-7), deadend double circuit wood pole structures (Figure 2-8), and double circuit steel poles (Figure 2-9). At the interconnection point, three-wood pole structures and deadend wood structures would be used. The height of the proposed gen-tie transmission structures would be 75 feet.

The electrical energy produced by the VEGA 6 project would be conducted through the project substation to the proposed 161 kV gen-tie line and delivered to the existing IID-approved point of interconnection at the IID 161 kV "L" line.

Bureau of Land Management Right-of-Way Request

Because the proposed gen-tie line would be located entirely on BLM land, the project applicant has filed a right-of-way (ROW) grant application with the BLM for a permit to construct, operate, and maintain the gen-tie line. As shown in Figure 2-4, the proposed ROW would be 60-feet-wide. A total of 77 pole structures would be set within this ROW. Construction of the gen-tie line would result in approximately 24.5 acres of disturbed area.

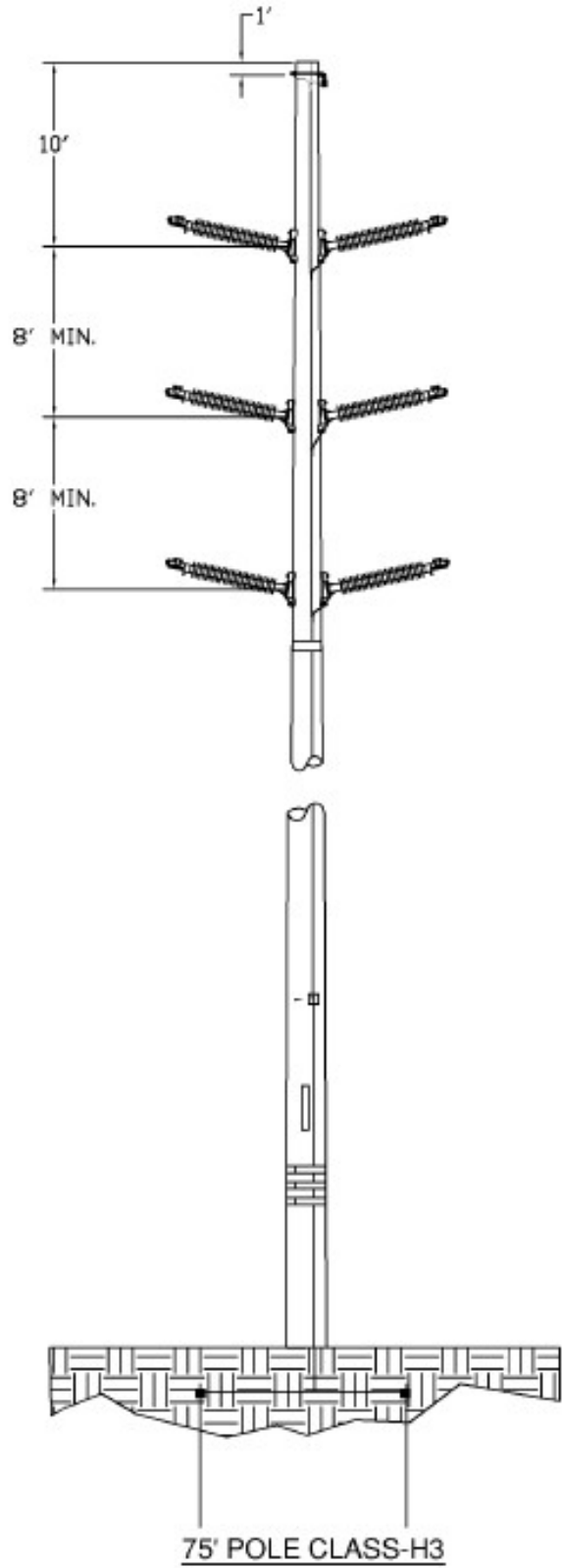
2.3.5 Security

Six-foot high chain link fencing topped with barbed wire would be installed around the perimeter of the solar energy facility site at the commencement of construction and site access would be limited to authorized site workers. Points of ingress/egress would be accessed via locked gates. In addition, a motion detection system and closed-circuit camera system may also be installed. The site would be remotely monitored 24 hours per day, 7 days per week. In addition, routine unscheduled security rounds may be made by the security team monitoring the site security.

2.3.6 Site Access

The solar energy facility site would include one primary access driveway, proposed via State Route (SR) 78 from the north and west, and across the Westside Main Canal, via county roadways (Garvey Road and Andre Road). This driveway would be provided with a minimum of 30-foot double swing gates with “Knox Box” for keyed entry. Internal to the solar energy facility site, up to 30-foot-wide roads would be provided between the PV arrays, as well as around the perimeter of the solar energy facility site yet inside the perimeter security fence to provide access to all areas of the site for maintenance and emergency vehicles.

Figure 2-9. Representative Example of Tangent Double Circuit Wood Pole Structure



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Figure 2-10. Representative Example of Deadend 3-Pole Structure

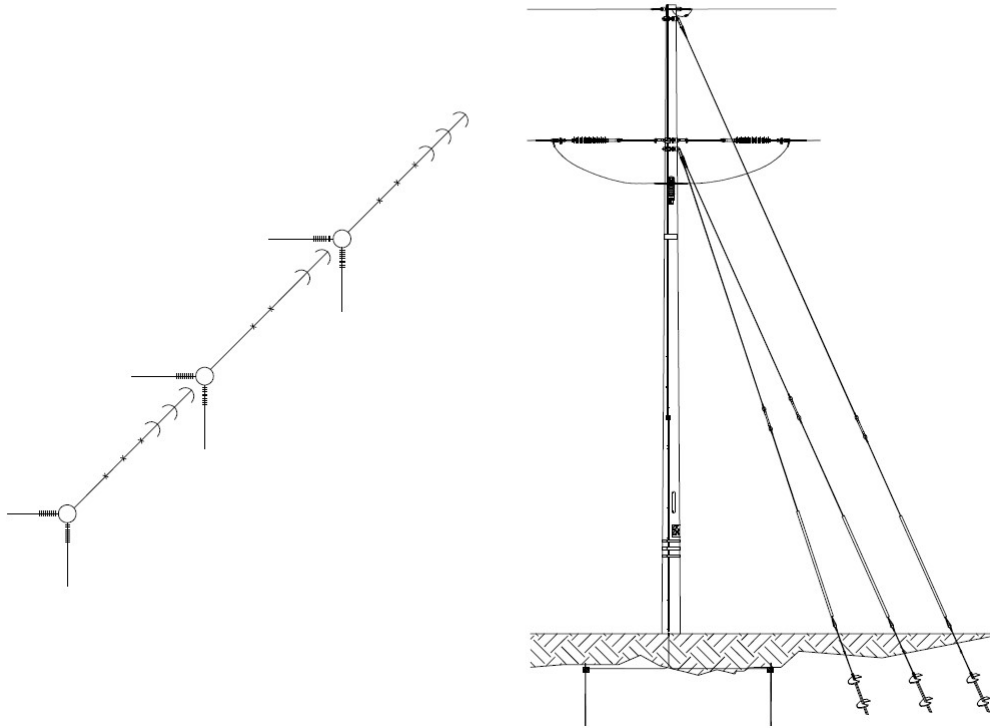
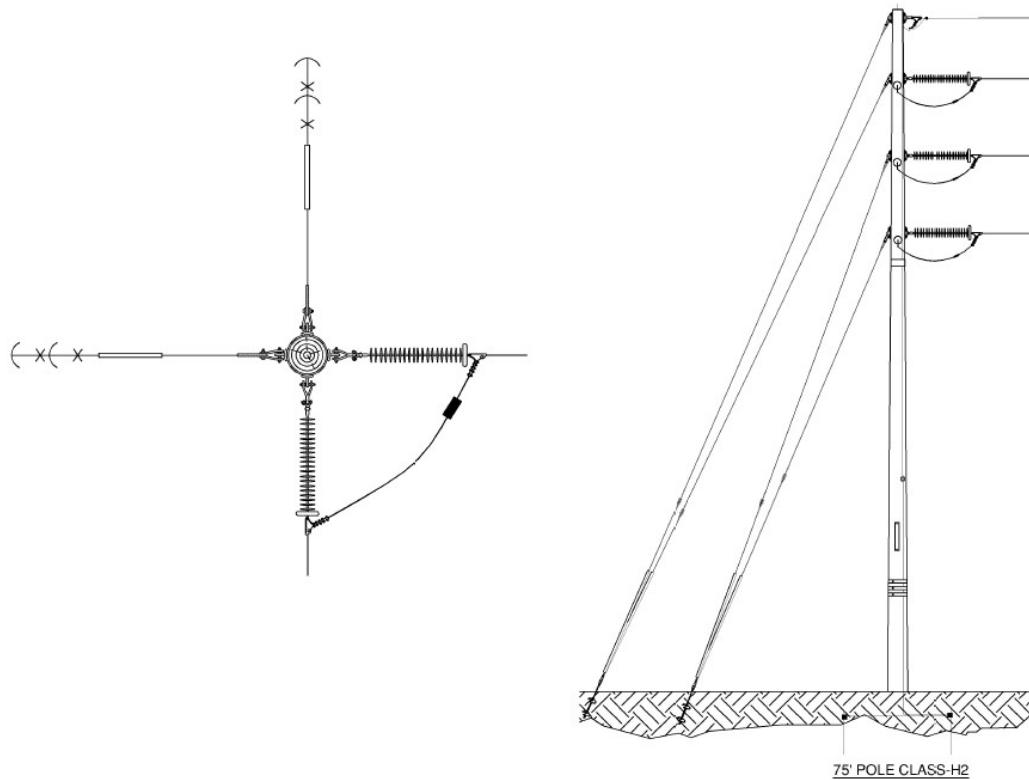


Figure 2-11. Representative Example of Deadend Double Circuit Pole Structure



2.3.7 Fire Protection/Fire Suppression

Fire protection systems for battery systems would be designed in accordance with California Fire Code and would take into consideration the recommendations of the National Fire Protection Association (NFPA) 855.

Fire suppression agents such as Novec 1230 or FM 2000, or water may be used as a suppressant. In addition, fire prevention methods would be implemented to reduce potential fire risk, including voltage, current, and temperature alarms. Energy storage equipment would comply with Underwriters Laboratory (UL)-95401 and test methods associated with UL-9540A. The project would include lithium-ion batteries. For lithium-ion batteries storage, a system would be used that would contain the fire event and encourage suppression through cooling, isolation, and containment. Suppressing a lithium-ion (secondary) battery is best accomplished by cooling the burning material. A gaseous fire suppressant agent (e.g., 3M™ Novec™ 1230 Fire Protection Fluid or similar) and an automatic fire extinguishing system with sound and light alarms would be used for lithium-ion batteries.

To mitigate potential hazards, redundant separate methods of failure detection would be implemented. These would include alarms from the Battery Management System (BMS), including voltage, current, and temperature alarms. Detection methods for off gas detection would be implemented, as applicable. These are in addition to other potential protective measures such as ventilation, overcurrent protection, battery controls maintaining batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in accordance with manufacturer guidelines. Remote alarms would be installed for operations personnel as well as emergency response teams in addition to exterior hazard lighting. In addition, an Incidence Response Plan would be implemented. Additionally, the project applicant would contribute its proportionate share for purchase of any fire-suppression equipment, if determined warranted by the County Fire Department for the proposed project.

2.3.8 Construction

Construction activities would primarily involve demolition and grubbing; grading of the project area to establish access roads and pads for electrical equipment (inverters and step-up transformers); trenching for underground electrical collection lines; the installation of solar equipment and security fencing; and the offsite infrastructure work required for the IID gen-tie transmission line route. Stormwater management facilities would be constructed internally within the solar energy facility site and would consist of basins and infiltration areas. Construction is estimated to take 12 to 18 months and would begin in 2024. A temporary, portable construction supply container would be located at the solar energy facility site at the beginning of construction and removed at the end of construction.

Dust generated during construction would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the Imperial County Air Pollution Control District (ICAPCD).

The number of on-site construction workers for the solar energy facility is not expected to exceed 150 workers at any one time. The number of on-site construction workers for the BESS and the substation is not expected to exceed 100 workers at any one time.

2.3.9 Operations and Maintenance

Once construction is completed, the facility would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Security personnel may conduct unscheduled security rounds and would be dispatched to the project site in response to a fence breach or other alarm.

Up to two to three people would be contracted (part-time) to perform all routine and emergency operational and maintenance activities. Such activities include inspections, equipment servicing, site and landscape clearing, and periodic washing of the PV modules if needed (up to two times per year) to maintain power generation efficiency. Vegetation growing on the solar energy facility site would periodically (approximately every 3 months) be removed manually and/or treated with herbicides.

2.3.10 Water Use

The VEGA 6 project site is approximately 5 to 10 miles away from the nearest municipal water systems (i.e., the community of Westmorland and the City of Brawley, respectively). The VEGA 6 project site is also located outside of IID's Imperial Unit, and therefore, does not have water service from IID. Water for construction (primarily dust control) would be obtained from a new onsite groundwater supply well or wells to be drilled and installed as part of the VEGA 6 project (see Figure 2-3). Potable water would be brought to the VEGA 6 project site for drinking and domestic needs.

Construction

The proposed VEGA 6 project would require approximately 170-acre feet (AF) of water for dust suppression and site grading during construction of the arrays, BESS area, and onsite substation.

Operation and Maintenance

Periodic washing of the PV modules is not expected to be necessary but could be needed to remove dust to maintain power generation efficiency. The amount of water needed for this purpose is conservatively estimated at 8 AF per year.

2.3.11 Restoration of the VEGA 6 Project Site

Electricity generated by the facility could be sold under the terms of a PPA with a power purchaser (i.e., utility service provider). At the end of the PPA term, the owner of the facility may choose to enter into a subsequent PPA, update technology and re-commission, or decommission and remove the generating facility and its components. The anticipated operational life of the project is 25 to 30 years. Upon decommissioning, the site could be converted to other uses in accordance with applicable land use regulations in effect at that time. A collection and recycling program will be executed to promote recycling of project components and minimize disposal in landfills. All permits related to decommissioning would be obtained, where required.

Project decommissioning may include the following activities:

- The facility would be disconnected from the utility power grid.
- Project components would be dismantled and removed using conventional construction equipment and recycled or disposed of safely.

- PV panel support steel and support posts would be removed and recycled off-site by an approved metals recycler.
- All compacted surfaces within the project site and temporary on-site haul roads would be de-compacted.
- Electrical and electronic devices, including inverters, transformers, panels, support structures, lighting fixtures, and their protective shelters would be recycled off-site by an approved recycler.
- All concrete used for the underground distribution system would be recycled off-site by a concrete recycler or crushed on-site and used as fill material.
- Fencing would be removed and recycled off-site by an approved metals recycler.
- Gravel roads would be removed; filter fabric would be bundled and disposed of in accordance with all applicable regulations. Road areas would be backfilled and restored to their natural contour.
- Soil erosion and sedimentation control measures would be re-implemented during the decommissioning period and until the site is stabilized.

2.4 Ramon Substation Expansion

Upgrades to the existing Ramon Substation are proposed which would add additional capacity to the substation in order to accommodate electricity generated by planned utility-scale solar projects, which would tie into the substation, and then energy converted would be added to the electrical grid. This includes, but is not limited to, the proposed VEGA 6 project.

The upgrades would involve an expansion of the existing developed area of the substation, generally expanding to include 4 additional acres of a currently undisturbed area at the substation site. During construction, access to the proposed improvement area would be through the existing substation site, via existing dirt roads located on the west and east of the existing substation, or a combination thereof.

2.4.1 Construction

The construction of the Ramon Substation expansion is estimated to take 180 working days and would begin in 2024. The number of on-site construction workers is not expected to exceed 20 workers at any one time.

Dust generated during construction would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the South Coast Air Quality Management District (SCAQMD).

2.4.2 Operation and Maintenance

Once constructed, the proposed Ramon Substation expansion will not require personnel to be present on-site and will not result in daily trip generation.

2.5 Required Project Approvals

2.5.1 Imperial County

The following are the primary discretionary approvals required for implementation of the project:

1. **General Plan Amendment #22-001.** An amendment to the County's General Plan, Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. As shown in Figure 2-1, the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the project site (APN No. 034-160-002) into the RE Overlay Zone. No change in the underlying General Plan land use (Agriculture) is proposed.
2. **Zone Change #22-0001.** The project site is currently zoned Open Space/Preservation (S-2). The applicant is requesting a Zone Change to include/classify the project site (APN No. 034-160-002) into the RE Overlay Zone to allow for solar and battery storage development.
3. **Approval of CUP #22-0005.** Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated BESS. The project site is located on one privately-owned legal parcel zoned Open Space/Preservation (S-2). Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:
 - d) *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
 - i) *Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:*
 - *Electrical generation plants*
 - *Facilities for the transmission of electrical energy (100-200 kV)*
 - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*
4. **Approval of CUP (CUP 22-0027) – Groundwater Well.** Pursuant to Title 9 Division 21: Water Well Regulations, §92102.00, the Applicant will be required to obtain a CUP for the proposed on-site groundwater well. As required by §92102.00, no person shall (1) drill a new well, (2) activate a previously drilled but unused well, (unused shall mean a well or wells that have not been used for a 12 month) period by installing pumps, motors, pressure tanks, piping, or other equipment necessary or intended to make the well operational, (3) increase the pumping capacity of a well, or (4) change the use of a well, without first obtaining a CUP through the County Planning & Development Services Department.

5. **Certification of the EIR.** After the required public review for the Draft EIR, the County will respond to written comments, edit the document, and produce a Final EIR to be certified by the Planning Commission and Board of Supervisors prior to making a decision on approval or denial of the project.

Subsequent ministerial approvals may include, but are not limited to:

- Grading and clearing permits
- Building permits
- Reclamation plan
- Encroachment permits
- Transportation permit(s)

2.5.2 Discretionary Actions and Approvals by Other Agencies

Responsible Agencies are those agencies that have discretionary approval over one or more actions involved with development of the project. Trustee Agencies are state agencies that have discretionary approval or jurisdiction by law over natural resources affected by a project.

- **Imperial Irrigation District (IID) (CEQA Responsible Agency).** The IID is a Responsible Agency as defined by CEQA Guideline Section 15381 as it relates to the proposed Ramon Substation improvements. In this capacity, the IID has the discretionary authority to approve improvements to the existing Ramon Substation, and would utilize the information contained in this EIR, as prepared by the County of Imperial as the CEQA Lead Agency, as the CEQA clearance for the substation improvements.
- **Bureau of Land Management (BLM) (National Environmental Policy Act – Federal Lead Agency).** Right-of-way grant for the off-site gen-tie line to be located on federal lands under the jurisdiction of the BLM. As shown in Figure 2-4, the proposed ROW would be 60-feet-wide.
- **County of Riverside.** The Ramon Substation expansion area is zoned General Residential Zone (R-3) in the Riverside County Zoning Ordinance. The Riverside County Zoning Ordinance does not identify public utilities as a permitted or conditional use in R-3. However, per Section 17.208.010, facilities for the storage or transmission of electrical energy is permitted with a Public Use Permit:

Facilities for the storage or transmission of electrical energy where the County is not preempted by law from exercising jurisdiction. This subsection shall take precedence over and supersede any conflicting provision in any zone classification. Facilities for the storage or transmission of electrical energy shall not be subject to the development standards of the zone classification in which they are located.

The existing Ramon Substation is currently operating under an approved Public Use Permit. IID would apply for an amendment to its Public Use Permit for the proposed Ramon Substation expansion.



Additional Responsible and/or Trustee Agencies may include, but are not limited to the following:

- California RWQCB – Notice of Intent for General Construction Permit
- ICAPCD – Fugitive Dust Control Plan, Rule 801 Compliance
- CDFW (Trustee Agency) – ESA Compliance, Section 1600 Streambed Alteration Agreement
- USFWS – ESA Compliance

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3 Environmental Analysis, Impacts, and Mitigation

3.1 Introduction to Environmental Analysis

This section provides an overview of the environmental analysis and presents the format for the environmental analysis in each topical section.

3.1.1 Organization of Issue Areas

Chapter 3 provides an analysis of impacts for those environmental topics that could result in significant impacts. Sections 3.2 through 3.15 discuss the environmental impacts that may result with approval and implementation of the project, and where impacts are identified, recommends mitigation measures that, when implemented, would reduce significant impacts to a less than significant level. Each environmental issue area in Chapter 3 contains a description of the following:

- The environmental setting as it relates to the specific issue
- The regulatory framework governing that issue
- The threshold of significance (from Appendix G of the CEQA Guidelines)
- The methodology used in identifying and considering the issues
- An evaluation of the project-specific impacts and identification of mitigation measures
- A determination of the level of significance after mitigation measures are implemented
- The identification of any residual significant impacts following mitigation

3.1.2 Format of the Impact Analysis

This analysis presents the potential impacts that could occur under the project along with any supporting mitigation requirements. Each section identifies the resulting level of significance of the impact using the terminology described below following the application of the proposed mitigation. The section includes an explanation of how the mitigation measure(s) reduces the impact in relation to the applied threshold of significance. If the impact remains significant (i.e., at or above the threshold of significance), additional discussion is provided to disclose the implications of the residual impact and indicate why no mitigation is available or why the applied mitigation does not reduce the impact to a less than significant level.

Changes that would result from the project were evaluated relative to existing environmental conditions within the project site as defined in Chapter 2, Project Description. Existing environmental conditions are based on the time at which the NOP was published on July 11, 2022. In evaluating the significance of these changes, this EIR applies thresholds of significance that have been developed using: (1) criteria discussed in the CEQA Guidelines; (2) criteria based on factual or scientific information; and (3) criteria based on regulatory standards of local, state, and/or federal agencies. Mechanisms that could cause impacts are discussed for each issue area.

This EIR uses the following terminology to denote the significance of environmental impacts of the project:

- *No impact* indicates that the construction, operation, and maintenance of the project would not have any direct or indirect effects on the environment. It means no change from existing conditions. This impact level does not need mitigation.
- A *less than significant impact* is one that would not result in a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if feasible, under CEQA.
- A *significant impact* is defined by CEQA Section 21068 as one that would cause “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.” Levels of significance can vary by project, based on the change in the existing physical condition. Under CEQA, mitigation measures or alternatives to the project must be provided, where feasible, to reduce the magnitude of significant impacts.
- An *unmitigable significant impact* is one that would result in a substantial or potentially substantial adverse effect on the environment, and that could not be reduced to a less than significant level even with any feasible mitigation. Under CEQA, a project with significant and unmitigable impacts could proceed, but the lead agency would be required to prepare a “statement of overriding considerations” in accordance with State CEQA Guidelines California Code of Regulations (CCR) Section 15093, explaining why the lead agency would proceed with the project in spite of the potential for significant impacts.



3.2 Aesthetics

This section provides a description of the existing visual and aesthetic resources within the VEGA 6 project area and Ramon Substation expansion area, and relevant state and local plans and policies regarding the protection of scenic resources. Effects to the existing visual character of the VEGA 6 project area and Ramon Substation expansion area as a result of project-related facilities are considered and mitigation is proposed based on the anticipated level of significance. The information provided in this section for the VEGA 6 project is summarized from the *Visual Impact Assessment Letter Report – VEGA SES 6 Project* prepared by ECORP Consulting, Inc. This report is included in Appendix B of this EIR. The information provided in this section for the Ramon Substation expansion area is summarized from review of publicly available data including Caltrans' State Scenic Highway System Map, Riverside County General Plan, and Riverside County Municipal Code.

3.2.1 Existing Conditions

Visual Character

VEGA 6

Imperial County encompasses 4,597 square miles in the southeastern portion of California. The County is bordered by Riverside County on the north, the international border of Mexico on the south, San Diego County on the west and Arizona on the east. The length and breadth of the County provide for a variety of visual resources ranging from desert, sand hills, mountain ranges, and the Salton Sea. According to the Imperial County General Plan, the closest scenic resource is the Salton Sea approximately 11 miles northwest of the project site (County of Imperial 2016).

The desert includes several distinct areas that add beauty and contrast to the natural landscape. The barren desert landscape of the Yuha Desert, lower Borrego Valley, East Mesa, and Pilot Knob Mesa provide a dramatic contrast against the backdrop of the surrounding mountain ranges. The West Mesa area is a scenic desert bordered on the east by the Imperial Sand Dunes, the lower Borrego Valley, the East Mesa, and Pilot Knob Mesa.

The eastern foothills of the Peninsular Range are located on the west side of the County. The Chocolate Mountains, named to reflect their dark color, are located in the northeastern portion of the County, extending from the southeast to the northwest between Riverside County and the Colorado River. These mountains reach an elevation of 2,700 feet making them highly visible throughout the County.

The solar energy facility site is located on approximately 320 acres of privately-owned vacant and undeveloped land. The solar energy facility site is located approximately 6 miles south of the southernmost edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. Brawley and Westmorland are relatively central within the agricultural portion of the Imperial Valley, which extends from the southeastern portion of the Salton Sea to the United States and Mexico border. The proposed VEGA 6 project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the Bureau of Land Management (BLM) within the California Desert Conservation Area (CDCA) planning area.

Topography is relatively flat, with elevations ranging -39 meters (-129 feet) and -6 meters (-21 feet). The majority of the project site consists of creosote bush scrub, disturbed creosote bush scrub,

agriculture, and disturbed areas. Small portions of the solar energy facility site along the northwestern perimeter and centrally within the site contain areas of disturbed tamarisk thickets.

Views in this area are expansive and are generally characterized by sparse development. The VEGA 6 project site is located in a sparsely populated portion of unincorporated Imperial County. The nearest single-family residence is located 2,725 feet from the northeastern corner of the solar and battery storage project site. Adjacent land uses include Open Space/Bureau of Land Management (BLM) land to the west and south, and active agriculture to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the site. Viewers would be limited to property owners and drivers using the nearby local roadways and SR 78/76.

KEY VIEWS

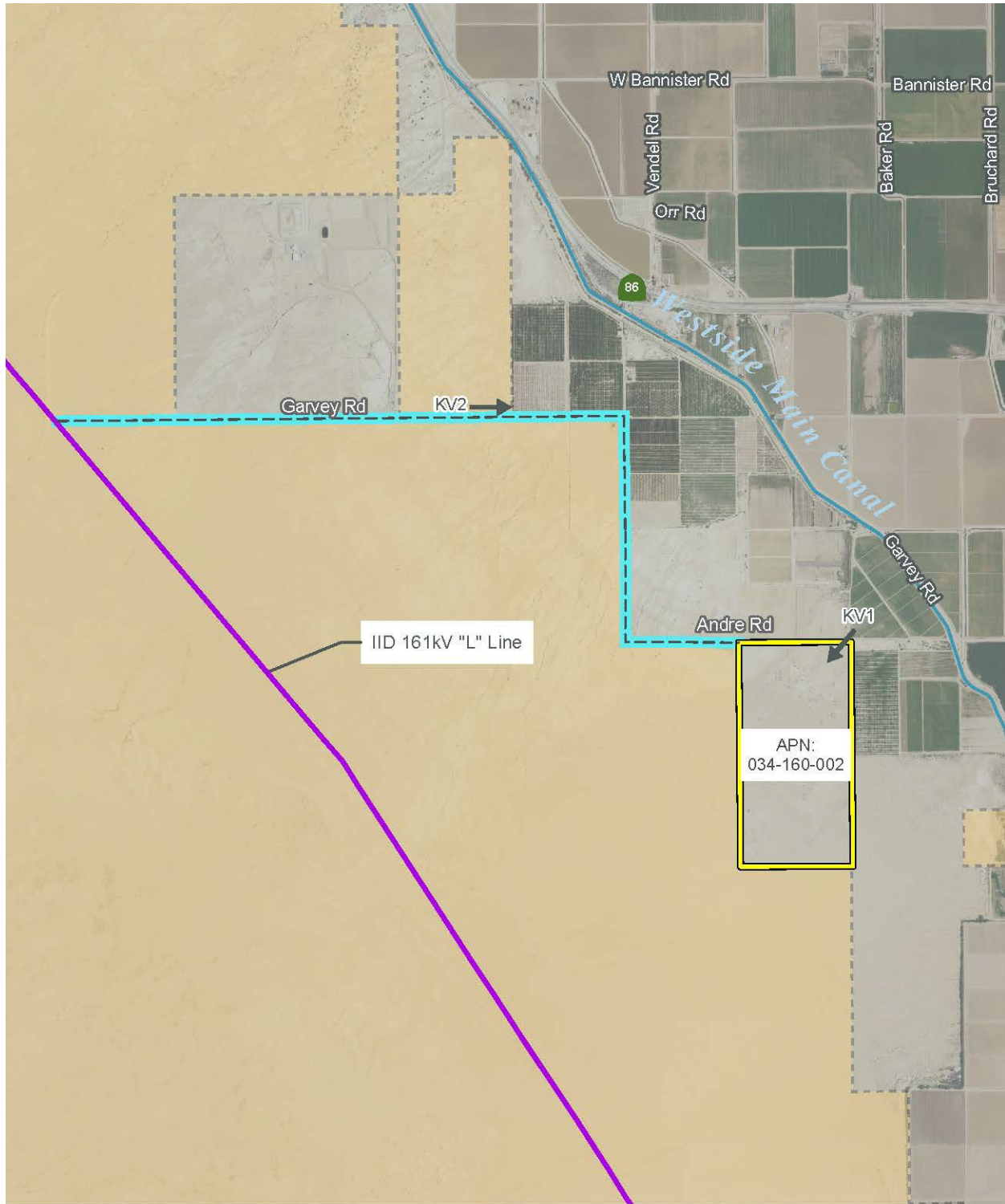
Aerial imagery was reviewed to identify where the proposed VEGA 6 project would potentially be visible from visually sensitive areas and selected preliminary viewpoints for site photography. A field survey was conducted in July 2021 to photo-document existing visual conditions in the project vicinity and surrounding area. Assessment of existing visual conditions were made based on professional judgment that took into consideration sensitive receptors and sensitive viewing areas in the project area.

Figure 3.2-1 illustrates the photo documented key views (KV) and the direction to which the photographs were taken. The photographs depicting the existing condition at the VEGA 6 project site are presented below. Descriptions of the existing KVs are as follows:

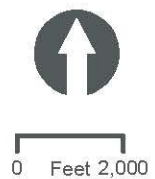
KV 1 – View from Andre Road. The view from KV 1 is from Andre Road, at the northeast corner of the solar energy facility site facing southwest (Figure 3.2-2). The dominant feature within this key view is the existing unpaved roadway in the foreground and sparse vegetation visible throughout the middle-ground. There are no striking topographic features visible within this key view. This view does not exhibit any striking or distinctive visual patterns and there are no scenic resources. Additionally, while existing unpaved roadways are present and distinguishable within this key view, it is free from encroaching man-made elements (Appendix B of this EIR).

KV 2 – View from Garvey Road. The view of KV 2 is from Garvey Road, west of the Westside Main Canal and the agricultural areas facing east (Figure 3.2-3). Similar to KV 1, the dominant feature within this key view is the existing paved roadway in the center throughout the view and sparse vegetation visible throughout the middle-ground. Also visible within this view is the existing electrical utility lines and poles on the left side of the roadway. This does not exhibit any striking or distinctive visual patterns; however, the presence of existing agricultural uses on the left and at the horizon soften the view and provide some aesthetic resources mostly unobstructed in the view. The existing electrical utility line and poles constitute encroaching man-made elements within this KV (Appendix B of this EIR).

Figure 3.2-1. Key View Map



- Project Site - Solar Energy Facility
- BLM Land
- IID 161 kV "L" Line (Existing IID Line)
- Gen-Tie (Proposed Project Gen-Tie)
- 60 ft Right of Way Required in BLM land (TYP)
- Key View (KV) Photo Point



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Figure 3.2-2. Key View 1: View from Andre Road, Looking Southwest from Northeast Corner of VEGA 6 Project Site



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Figure 3.2-3. Key View 2: View from Garvey Road, Looking East



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Ramon Substation Expansion

The Ramon Substation expansion area is on approximately 4 acres of vacant and undeveloped land, immediately north of the existing Ramon Substation. The expansion area is located approximately 1.5 miles north of the Interstate-10 Freeway (I-10) and east of the unincorporated community of Thousand Palms in Riverside County. The existing Ramon Substation occupies approximately 6.7 acres on the single parcel (APN 651-230-015). The community of Thousand Palms is characterized by mobile home subdivisions, single-family residential neighborhoods, and rural residential development (County of Riverside 2021).

Views in the immediate vicinity are characterized by utility infrastructure and overhead lines from the existing Ramon Substation and residential development. Looking to the north and east, there is vacant and undisturbed land, with residences located further east. The existing Ramon Substation is located immediately south of the Ramon Substation expansion area. To the west, there is existing utility infrastructure (SCE Mirage Substation) and residential development with the nearest single-family residence located approximately 0.2 miles from the proposed expansion area. Viewers would be limited to drivers on Ramon Road and residences in the immediate vicinity such as along Via Las Palmas and in the Tri Palm Estates development along Ramon Road to the southwest.

Scenic Vista

VEGA 6

Scenic vistas are typically expansive views from elevated areas. They may or may not be part of a designated scenic overlook or other area providing a static vista view of a landscape. The solar energy facility site is located in a rural portion of Imperial County and is not located within an area containing a scenic vista designated by the State or the County's General Plan.

The proposed gen-tie transmission line would be located entirely on federal lands managed by the BLM. According to the Conservation and Open Space Element of the Imperial County General Plan (County of Imperial 2016):

Many of the natural scenic resources are located on land under BLM jurisdiction. County areas for BLM-managed lands are shown on Figure 9 and depict the values of the County's visual resources based on their Visual Resource Inventory (VRI) process. Areas with a moderate to high value for maintenance of visual quality could represent opportunities for conservation and open space areas.

According to Figure 9 of the Conservation and Open Space Element, the gen-tie line is located within an area with a high value for maintenance of visual quality (County of Imperial 2016).

Ramon Substation Expansion

The Ramon Substation expansion area is not located near or adjacent to any scenic vistas designated by the Western Coachella Valley Area Plan (WCVAP) (County of Riverside 2021).

Scenic Highways

VEGA 6

According to the Conservation and Open Space Element, no State scenic highways have been designated in Imperial County (County of Imperial 2016). Additionally, there are no designated

Caltrans scenic highways in the vicinity of the VEGA 6 project. The nearest scenic highway to the project site is the junction of SR-78 and SR-86, located over 10 miles northwest of the site. This section of the scenic highway would not be visible from the location of the proposed project.

Ramon Substation Expansion

There are no state designated Caltrans scenic highways in the vicinity of the Ramon Substation expansion area. The nearest scenic highway to the project site is located over 9 miles south of the site at the junction of SR111 and SR-74. There are also no County designated scenic highways along the Ramon Substation expansion area according to the WCVAP (County of Riverside 2021). The County of Riverside's General Plan's Circulation Element identifies the I-10 as a County eligible scenic highway (County of Riverside 2020). The I-10 is located approximately 1.5 miles south of the Ramon Substation expansion area.

Light, Glare, and Glint

VEGA 6

Glare is considered a continuous source of brightness, relative to diffused light, whereas glint is a direct redirection of the sun beam in the surface of a PV solar module. Glint is highly directional, since its origin is purely reflective, whereas glare is the reflection of diffuse irradiance; it is not a direct reflection of the sun.

As the project is located in an area consisting of mostly vacant land and the nature of the existing agricultural land and very few residences in the area, limited light is generated within the project area. The majority of the light and glare in the project area is a result of motor vehicles traveling on surrounding roadways, airplanes, and farm equipment. Local roadways generate glare both during the night hours when cars travel with lights on, and during daytime hours because of the sun's reflection from cars and pavement surfaces. When light is not sufficiently screened and spills over into areas outside of a particular development area the effect is called "light trespassing."

Ramon Substation Expansion

The Ramon Substation expansion area is located in an area with limited lighting because it is surrounded by undeveloped land to the north and east. The majority of the light and glare in the Ramon Substation area is from motor vehicles travelling along Ramon Road.

3.2.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

State

California Department of Transportation

Caltrans manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the scenic corridor.

Local

Imperial County General Plan

The Imperial County General Plan contains policies for the protection and conservation of scenic resources and open spaces within the County. These policies also provide guidance for the design of new development. The Conservation and Open Space Element of the General Plan provides specific goals and objectives for maintaining and protecting the aesthetic character of the region. Table 3.2-1 provides an analysis of the proposed VEGA 6 project’s consistency with the Conservation and Open Space Element Goal 5. Additionally, the Circulation and Scenic Highways Element of the General Plan provides policies for protecting and enhancing scenic resources within highway corridors in Imperial County, consistent with the Caltrans State Scenic Highway Program.

Table 3.2-1. Consistency with Applicable General Plan Conservation and Open Space Policies

General Plan Policies	Consistency with General Plan	Analysis
<p>Goal 5: The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity.</p>	<p>Consistent</p>	<p>The project would result in changes to the visual character of the project area. As described in Section 3.2.1, the project site does not contain high levels of visual character or quality; therefore, the project would not result in a significant deterioration in the visual character of the project site or project area.</p>
<p>Objective 5.1: Encourage the conservation and enhancement of the natural beauty of the desert and mountain landscape.</p>	<p>Consistent</p>	<p>The proposed project includes an approximately 4-mile gen-tie transmission line that would connect to the IID’s existing 161 kV “L” Line. The entire gen-tie route would be on federal lands managed by the BLM within the CDCA planning area. Existing electrical utility lines and poles already exist along Garvey Road. The addition of new electrical lines and poles associated with the proposed gen-tie line would be absorbed into the broader landscape that already includes electricity transmission and utility lines.</p>

Source: County of Imperial 2016

Office of Imperial Land Use Ordinance, Title 9

The County’s Land Use Ordinance Code provides specific direction for lighting requirements.

DIVISION 17: RENEWABLE ENERGY RESOURCES, SECTION 91702.00 – SPECIFIC STANDARDS FOR ALL RENEWABLE ENERGY PROJECTS

- (R) Lights should be directed or shielded to confine direct rays to the project site and muted to the maximum extent consistent with safety and operational necessity.

Riverside County General Plan

The Riverside County General Plan does not have any specific sections related to aesthetics and visual resources. However, the Land Use Element includes policies related to Land Use Compatibility, Community Design, and Scenic Corridors, which have applicability to the topic of aesthetics. The Land Use Element provides direction related to how future development is intended to build out, such as the intensity/density and character of new development. The Land Use Element also addresses the relationship between development, community enhancement, and natural resource management. The Multipurpose Open Space Element also addresses open space and scenic resources in Riverside County.

Western Coachella Valley Area Plan

The WCVAP is one of 19 area plans within the County of Riverside General Plan. The WCVAP contains focused policies that guide the physical development and land uses in the unincorporated western portion of the Coachella Valley.

Riverside County Municipal Code

Chapter 8.80 of the Riverside County Municipal Code provides regulations for light pollution. This ordinance is intended to restrict the use of certain light fixtures emitting undesirable light rays into the night sky, which is a waste of natural resources and light trespass. The ordinance requires that outdoor luminaries be adequately shielded and directed such that no direct light falls outside the parcel of origin or onto the public right-of-way.

Riverside County Ordinance No. 348, Land Use

Riverside County's Land Use Ordinance establishes allowable uses of land and sets standards for what and how land may be developed. The ordinance protects the people and property of Riverside County from development of unsuitable land uses and aims to ensure that built areas are developed safely and with minimal conflict with surrounding lands.

Riverside County Ordinance No. 655, Regulating Light Pollution

The intent of Ordinance No. 655 is to restrict the permitted use of certain light fixtures emitting into the night sky undesirable light rays, which have a detrimental effect on astronomical observation and research. Ordinance No. 655 defines lighting sources, establishes the type and manner of installation and operation of lighting and details lighting prohibitions. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mount Palomar Observatory.

As shown on Figure 6: Mount Palomar Nighttime Lighting Policy Area of the WCVAP, the Ramon Substation expansion area is located within the limits of "Zone B" of the Mount Palomar Observatory Lighting Policy Area (County of Riverside 2021). As such, the expansion area is subject to the outdoor lighting policies and requirements specified by Riverside County Ordinance No. 655, which includes specific standards for lighting fixtures installed along public roadways and in other common areas and applies to all new development. Ordinance No. 655 encourages the use of low-pressure sodium lamps where possible, requires the shielding of all nonexempt outdoor lighting fixtures, specifies the hours of operation for nonexempt outdoor lighting fixtures, and regulates lighting fixtures used to illuminate outdoor advertising displays.

Riverside County Ordinance No. 915, Regulating Outdoor Lighting

The intent of this ordinance is to establish a countywide standard for outdoor lighting that would generally prohibit light trespass and protect the health, property, and well-being of residents within the unincorporated Riverside County.

3.2.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to aesthetic and visual resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to aesthetics are considered significant if any of the following occur:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

Methodology

VEGA 6

The visual impact analysis is based on field observations conducted in July 2021, as well as review of maps and aerial photographs for the VEGA 6 project area. A representative subset of photographed viewpoints was selected as KVs, which collectively serve as the basis for this assessment. Assessments of existing visual conditions were made based on professional judgment that took into consideration sensitive receptors and sensitive viewing areas in the VEGA 6 project area. The locations of the two KVs in relation to the project site are presented in Figure 3.2-1.

The following steps were taken in analyzing visual impacts of the VEGA 6 project:

1. Describe the existing visual setting, including any sensitive viewer groups (i.e., baseline conditions);
2. Identify key viewpoints for visual assessment;
3. Describe or depict the visual appearance of the project at the key viewpoints. Key viewpoints are selected to represent the typical views from the public right-of-way;
4. Assess the visual changes that would be introduced by the project and the viewer response based on defined attributes which are neither good nor bad. Change in visual character cannot be described as having good or bad attributes until compared with viewer responses to the change;

5. Determine the degree of visual impact;
6. Proposed methods to minimize adverse impacts

Ramon Substation Expansion

The visual impact analysis is based on a review of maps and aerial photographs for the Ramon Substation expansion area. The analysis includes a description of baseline conditions and analyzes the changes in visual quality that would occur with implementation of the proposed Ramon Substation expansion.

Impact Analysis

Impact 3.2-1 Would the project have a substantial adverse effect on a scenic vista?

VEGA 6

Scenic vistas are typically expansive views from elevated areas that may or may not be part of a designated scenic overlook or other area providing a static view of a landscape. During construction, the use of standard construction equipment including, but not limited to, trucks, cranes, and tractors would be required. The presence of this equipment within the VEGA 6 project site during construction would alter views of the area from undeveloped land to a construction site. However, the views of construction activity from the surrounding vicinity would be temporary and would not involve any designated scenic vistas as there are no designated scenic vistas in the project vicinity. According to the Imperial County General Plan, the closest scenic resource is the Salton Sea approximately 11 miles northwest of the project site (County of Imperial 2016). Therefore, impacts to a scenic vista are considered less than significant during construction.

Upon project operation, and with implementation of the solar infrastructure, the overall visual character of the VEGA 6 project site would change. However, given that there are no scenic resources or vistas within proximity to the VEGA 6 project site, project operation would not have a substantial adverse effect on a scenic vista. Impacts are considered less than significant.

Ramon Substation Expansion

The Ramon Substation expansion area is not located near or adjacent to any scenic vistas designated by the WCVAP (County of Riverside 2021). During construction, the use of standard construction equipment including, but not limited to, trucks, cranes, and tractors would be required. The presence of this equipment within the Ramon Substation expansion area during construction would alter views of the area from undeveloped land to a construction site. However, the views of construction activity from the surrounding vicinity would be temporary and would not involve any designated scenic vistas as there are no designated scenic vistas in the project vicinity. Therefore, the proposed Ramon Substation expansion would have no impact on scenic vistas.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.



Impact 3.2-2 Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

VEGA 6

There are no designated or eligible state scenic highways in the VEGA 6 project vicinity. The nearest road segment among those identified by Imperial County is the junction of SR-78 and SR-86 which is located over 10 miles northwest of the VEGA 6 project site. Therefore, no impacts to scenic resources within any state scenic highways would occur.

Ramon Substation Expansion

As previously noted, there are no state designated Caltrans scenic highways in the vicinity of the Ramon Substation expansion area. The nearest scenic highway to the project site is located over 9 miles south of the site at the junction of SR-111 and SR-74. I-10, located approximately 1.5 miles south of the Ramon Substation expansion area, is considered a County eligible scenic highway. Due to these distances, no impacts to scenic resources within a state or county scenic highway would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.2-3 In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

VEGA 6

Short-term visual impacts would occur in association with construction activities, including introducing heavy equipment (e.g., cranes), staging and materials storage areas and potential dust and exhaust to the VEGA 6 project area. While construction equipment and activity may present a visual nuisance, it would be temporary (approximately 12-18 months) and would not represent a permanent change in views. Therefore, impacts associated with degradation of the existing visual character or quality of the VEGA 6 project site during construction are considered less than significant.

A discussion of the potential impacts of the project at KV1 and KV2 are discussed below:

KV 1 – View from Andre Road. From KV 1, the overall character and experience for viewers would change substantially with project implementation. The main physical change that would occur within this view is the complete removal of vegetation and grading of the solar energy facility site to accommodate the construction of solar apparatus and security fencing. Other facilities proposed such as roads, pads, underground utilities, and stormwater facilities would not be visible from the public right-of-way. There are no County-designated scenic resources visible from KV 1. Additionally, there

are no scenic vista points identified in the County General Plan and none of the roadways in the project vicinity are designated as scenic highways or roadways.

The proposed PV module frames when installed on pads would be approximately 7.5 feet in height and the proposed security fencing would be approximately 6 feet in height. Currently, the existing vegetation on the solar energy facility site consists of low-lying shrubs and there are no visual obstructions. The installation of the new PV module frames would not result in the obstruction of any scenic resources as none exist within this view (Appendix B of this EIR).

Well construction would necessitate the installation of a small pump structure to house well equipment and associated piping. The proposed pump structure would be small in comparison to the site as a whole and not readily visible from the public right-of-way. The pump structure would not result in the obstruction of any scenic resources as none exist within this view.

Project implementation would change the natural conditions of the site with development of a solar energy and battery storage facility. Onsite vegetation would be completely removed, and the site would be graded to accommodate the installation of PV module frames in arrays. Although project implementation would result in the conversion of a naturally vegetated area with energy-related facilities, open space vegetated areas are not considered to be scenic resources by the County of Imperial.

KV 2 – View from Garvey Road. From KV 2, the overall character and experience for the viewer would not change substantially with implementation of the project. The main physical change that would occur within this view would be the addition of new electrical lines and poles associated with the proposed gen-tie line. As shown in Figure 3.2-3, existing electrical utility lines and poles already exist along Garvey Road. The addition of new electrical lines and poles associated with the proposed gen-tie line would be absorbed into the broader landscape that already includes electricity transmission and utility lines. No substantial visual impacts with the installation of proposed electrical facilities associated with the gen-tie line would occur at KV 2. These effects would be less than significant.

Ramon Substation Expansion

Short-term visual impacts would occur in association with construction activities, including introducing heavy equipment (e.g., cranes), staging and materials storage areas and potential dust and exhaust to the expansion area. While construction equipment and activity may present a visual nuisance, it would be temporary (approximately 6 months) and would not represent a permanent change in views. Therefore, impacts associated with degradation of the existing visual character or quality of the Ramon Substation expansion area during construction are considered less than significant.

The Ramon Substation expansion would contribute to an increase in industrial character with the addition of utility infrastructure. This would also increase visual contrast to a predominantly natural-appearing landscape that surrounds the area. However, because the Ramon Substation and SCE Mirage Substation already exist, the overall character and experience of viewers would not substantially change or cause visual degradation of the site as a result of the proposed expansion. The Ramon Substation expansion would not result in the obstruction of any scenic resources as none exist within the vicinity of the area. Therefore, impacts related to the degradation of the existing visual character or quality of the Ramon Substation expansion area would be considered less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.2-4 *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

VEGA 6

Minimal lighting would be required for operations and would be limited to safety and security functions. All lighting will be directed downward and shielded to focus illumination on the desired areas only and to minimize light trespass in accordance with applicable County requirements. If additional lighting should be required for nighttime maintenance, portable lighting equipment would be used. The VEGA 6 project is not anticipated to create a new source of substantial light which would adversely affect nighttime views in the project area, and this is considered a less than significant impact.

The VEGA 6 project would involve the installation of PV solar arrays which have low reflectivity. Solar PV modules are specifically designed to reduce reflection as any reflected light cannot be converted into energy. Research has shown that reflectivity from PV panels is similar to reflections from water (Appendix B of this EIR). Therefore, the PV panels would not create a significant source of glare during sunlight hours. The VEGA 6 project would not use other reflective materials such as fiberglass, aluminum or vinyl/plastic siding, galvanized products, and brightly painted steel roofs that have the potential to create on- and off-site glare. The proposed VEGA 6 project would result in a less than significant impact related to glare.

Shade and shadow effects would be introduced within the VEGA 6 project site due to the placement of PV modules in arrays. However, due to the height of the proposed apparatus at 7.5 feet and the perimeter fencing at 6 feet, the effects of shade and shadow would not encroach into areas offsite for extended periods of time that would result in significant shade and/or shadow impacts.

Ramon Substation Expansion

Minimal lighting would be required for operations and would be limited to safety and security functions. The Ramon Substation expansion area is located within the limits of “Zone B” of the Mount Palomar Observatory Lighting Policy Area (County of Riverside 2021). All projects within Zone B of the Mt. Palomar Nighttime Lighting Policy Area are required to adhere to the requirements of Riverside County Ordinance No. 655, which controls artificial lighting sources to protect the Observatory. Ordinance No. 655 states that low-pressure sodium lamps are the preferred illuminating source, and that outdoor lighting fixtures are required to be shielded. Pursuant to Section 7 of Ordinance No. 655, future building permits would be required to include specific information with regard to lighting, as follows: 1) the location of the site where outdoor light fixtures would be installed; 2) plans indicating the location and type of fixtures of the premises; and 3) a description of the outdoor light fixtures, including, but not limited to, manufacturer’s catalog cuts and drawings. The required plans and descriptions enable the County of Riverside to determine whether compliance with the requirements of the ordinance are met. No building permits would be issued by the County of Riverside unless the building permit applications demonstrate consistency with the provisions of Ordinance No. 655.

Based on the foregoing analysis, and with mandatory compliance with Ordinance No. 655, a less than significant impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.2.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the proposed project, the proposed project will be decommissioned and dismantled. No grading or significant landform modifications would be required during decommissioning activities upon site restoration in the future. Although the project site would be visually disrupted in the short-term during decommissioning activities because extensive grading is not required and these activities would be temporary, the visual character of the project site would not be substantially degraded in the short-term and related impacts would be less than significant.

Residual

Impacts related to glare and glint impacts to roadway travelers would be less than significant and no additional mitigation measures are required. Changes to visual character of the project area would be less than significant and would be transitioned back to their prior conditions following site decommissioning. Based on these conclusions, implementation of the proposed project would not result in residual significant unmitigable impacts to the visual character of the project site or add substantial amounts of light and glare.

3.3 Air Quality

This section includes an overview of the existing air quality within the VEGA 6 project area and Ramon Substation expansion area and identifies applicable local, state, and federal policies related to air quality. The impact assessment for the VEGA 6 project provides an evaluation of potential adverse effects on air quality based on criteria derived from the CEQA Guidelines and Imperial County Air Pollution Control District's (ICAPCD) Air Quality Handbook in conjunction with actions proposed in Chapter 2, Project Description, of this EIR. Information contained in this section for the VEGA 6 project is summarized from the *Air Quality and Greenhouse Gas Assessment for the VEGA SES 6 Solar and Battery Storage Project* prepared by ECORP Consulting, Inc. This report is included in Appendix C1 of this EIR.

The impact assessment for the proposed Ramon Substation expansion provides an evaluation of potential adverse effects on air quality based on criteria derived from the CEQA Guidelines and South Coast Air Quality Management District's CEQA Air Quality Significance Thresholds in conjunction with actions proposed in Chapter 2, Project Description, of this EIR. Air quality emissions for the proposed Ramon Substation expansion were estimated using CalEEMod, version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to model emissions for land use development projects, based on typical construction requirements. The CalEEMod worksheets generated for the proposed Ramon Substation expansion are contained in Appendix C2 of this EIR.

3.3.1 Existing Conditions

Regional Setting

VEGA 6

The VEGA 6 project is located in Imperial County within the Salton Sea Air Basin (SSAB). The SSAB consists of all of Imperial County and a portion of Riverside County. Both the ICAPCD and South Coast Air Quality Management District (SCAQMD) have jurisdiction within the SSAB. The ICAPCD has full jurisdiction within all Imperial County and SCAQMD only has jurisdiction within Riverside County.

The climate of Imperial County is governed by the large-scale sinking and warming of air in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The high-pressure ridge blocks out most mid-latitude storms, except in the winter, when it is weakest and located farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal areas. Because of the barrier and weakened storms, Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall. The sun shines, on the average, more in Imperial County than anywhere else in the United States.

The lack of clouds and atmospheric moisture creates strong diurnal and seasonal temperature variations ranging from an average summer maximum of 108 degrees Fahrenheit (° F) down to a winter morning minimum of 38° F. The most pleasant weather occurs from about mid-October to early May when daily highs are in the 70s and 80s with very infrequent cloudiness or rainfall. Imperial County experiences rainfall on an average of only four times per year (>0.10 inches in 24 hours). The local area usually has three days of rain in winter and one thunderstorm day in August. The annual rainfall in this region is less than three inches per year (Appendix C1 of this EIR).

Humidity is low throughout the year, ranging from an average of 28 percent in summer to 52 percent in winter. The large daily oscillation of temperature produces a corresponding large variation in the relative humidity. Nocturnal humidity rises to 50 to 60 percent but drops to about 10 percent during the day.

The wind in Imperial County follows two general patterns. Wind statistics indicate prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident. The prevailing winds from the west and northwest occur seasonally from fall through spring and are known to be from the Los Angeles area. Occasionally, Imperial County experiences periods of extremely high wind speeds. Wind speeds can exceed 31 miles per hour (mph), and this occurs most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements.

Ramon Substation Expansion

The Ramon Substation expansion area is located in the Riverside County portion of the SSAB. Air quality conditions in this portion of Riverside County are administered by SCAQMD. During the summer, the SSAB is generally influenced by a Pacific Subtropical High Cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The SSAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The SSAB averages between three and seven inches of precipitation per year (County of San Bernardino 2018).

Major Air Pollutants

Criteria Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone, coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 3.3-1.

Table 3.3-1. Criteria Air Pollutants – Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health and Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO ₂	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.



Pollutant	Major Manmade Sources	Human Health and Welfare Effects
O ₃	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N ₂ O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM ₁₀ and PM _{2.5}	Power plants, steel mills, chemical plants, unpaved roads and parking lots, woodburning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: Appendix C1 of this EIR

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California’s known cancer risk from outdoor air pollutants. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death (Appendix C1 of this EIR).

Attainment Status

The U.S. Environmental Protection Agency (EPA) and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than ozone [O₃], PM₁₀ and PM_{2.5} and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃,

PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period.

Imperial County Portion of the Salton Sea Air Basin

The attainment status for the portion of the SSAB encompassing the project site is shown in Table 3.3-2. As shown, the Imperial County portion of the SSAB is currently designated as nonattainment for O₃ and PM₁₀ under State standards. Under federal standards, the Imperial County portion of the SSAB is in nonattainment for O₃, PM₁₀, and PM_{2.5}. The area is currently in attainment or unclassified status for CO, NO₂, and SO₂.

Table 3.3-2. Attainment Status of Criteria Pollutants in the Imperial County Portion of the Salton Sea Air Basin

Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Nonattainment
PM _{2.5}	Attainment	Nonattainment
CO	Attainment	Unclassified/attainment
NO ₂	Attainment	Unclassified/attainment
SO ₂	Attainment	Unclassified/attainment

Source: Appendix C1 of this EIR

Riverside County Portion of the Salton Sea Air Basin

The attainment status for the portion of the SSAB encompassing the Ramon Substation expansion area is shown in Table 3.3-3. As shown, the Riverside County portion of the SSAB is currently designated as nonattainment for O₃ and PM₁₀ under State standards. Under federal standards, the Riverside County portion of the SSAB is in nonattainment for O₃ and PM₁₀. The area is currently in attainment or unclassified status for CO, NO₂, SO₂, and PM_{2.5}.

Table 3.3-3. Attainment Status of Criteria Pollutants in the Riverside County Portion of the Salton Sea Air Basin

Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Nonattainment
PM _{2.5}	Attainment	Unclassified/attainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment

Source: County of Riverside 2018



Local Ambient Air Quality

VEGA 6

Ambient air quality at the project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The ICAPCD operates a network of monitoring stations throughout Imperial County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations.

Since not all air monitoring stations measure all of the tracked pollutants, the data from the following monitoring stations, listed in the order of proximity to the VEGA 6 project site, have been used: Westmorland Monitoring Station (Westmorland Station), Brawley-220 Main Street Monitoring Station (Brawley Station).

The Westmorland Station is located approximately 4.5 miles northeast of the VEGA 6 project site at 570 Cook Street and the Brawley Station is located approximately 9.4 miles east of the VEGA 6 project site at 220 Main Street. PM₁₀ and O₃ was measured at the Westmorland Station and PM_{2.5} was measured at the Brawley Station. It should be noted that due to the air monitoring stations' distances from the VEGA 6 project site, recorded air pollution levels at the air monitoring stations reflect with varying degrees of accuracy local air quality conditions at the VEGA 6 project site. Table 3.3-4 shows the most recent three years of monitoring data from CARB.

Table 3.3-4. Summary of Local Ambient Air Quality Data

Pollutant (Standard)	Year		
	2020	2021	2022
O₃ – Westmorland Station			
Maximum 1-Hour Concentration (ppm)	0.067	0.081	0.085
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm) (state/federal)	0.059 / 0.059	0.073 / 0.072	0.068 / 0.067
Days > CAAQS (0.070 ppm)	0	1	0
PM₁₀ – Westmorland Station			
Maximum 24-Hour concentration (µg/m ³) (state/federal)	297.2 / 286.8	543.1 / 547.1	896.2 / 867.2
Days > CAAQS (150 µg/m ³)	89	104	123
PM_{2.5} – Brawley Station			
Maximum 24-Hour Concentration (µg/m ³) (state/federal)	23.7 / 23.7	24.4 / 24.4	43.2 / 43.2
Days > CAAQS (35 µg/m ³) (federal)	0	0	5

Source: CARB 2023

µg/m³ – micrograms per cubic meter; ppm = parts per million

* = insufficient data available

Ramon Substation Expansion

The SCAQMD operates a network of monitoring stations throughout Riverside County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations.

The nearest air quality monitoring station is the Palm Springs-Fire Station located at 590 E Racquet Club Ave in Palm Springs, CA.

Table 3.3-5. Summary of Local Ambient Air Quality Data

Pollutant (Standard)	Year		
	2020	2021	2022
O₃ – Palm Springs-Fire Station			
Maximum 1-Hour Concentration (ppm)	0.119	0.110	0.106
Days > CAAQS (0.09 ppm)	9	10	7
Maximum 8-Hour Concentration (ppm) (state/federal)	0.094 / 0.094	0.093 / 0.092	0.090 / 0.089
Days > CAAQS (0.070 ppm)	53	38	43
PM₁₀ – Palm Springs-Fire Station			
Maximum 24-Hour concentration (µg/m ³) (state/federal)	40.8 / 129.8	34.5 / 35.2	156.3 / 159.5
Days > CAAQS (150 µg/m ³)	0	0	3

Source: CARB 2023

µg/m³ – micrograms per cubic meter; ppm = parts per million

* = insufficient data available

Sensitive Receptors

High concentrations of air pollutants pose health hazards for the general population, but particularly for the young, the elderly, and the sick. Typical health problems attributed to smog include respiratory ailments, eye and throat irritations, headaches, coughing, and chest discomfort. Certain land uses are considered to be more sensitive to the effects of air pollution. Schools, hospitals, residences, and other facilities where people congregate, especially children, the elderly and infirm, are considered particularly sensitive to air pollutants.

VEGA 6

The nearest sensitive receptor is a single-family residence located 2,725 feet from the northeastern corner of the solar energy facility site. For construction occurring during the gen-tie transmission line route to the IID electrical grid transmission line, the nearest sensitive receptor would be 970 feet away.

Ramon Substation Expansion

The nearest sensitive receptor to the Ramon Substation expansion area are single-family residences located approximately 0.2 miles west along Via Las Palmas.

3.3.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Clean Air Act

The CAA, passed in 1970 and last amended in 1990, is the primary federal law that governs air quality. The Federal CAA delegates primary responsibility for clean air to the U.S. EPA. The U.S. EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, the U.S. EPA has established the NAAQS for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. Ozone, CO, NO₂, SO₂, Pb, and PM (Including both PM₁₀, and PM_{2.5}) are the six criteria air pollutants. Ozone is a secondary pollutant, nitrogen oxides (NO_x) and volatile organic compounds (VOC) are of particular interest as they are precursors to ozone formation. In addition, national standards exist for Pb. The NAAQS standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision.

The Federal CAA requires U.S EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table 3.3-6.

State

California Clean Air Act

The California Clean Air Act (CCAA) was adopted by CARB in 1988. The CCAA is responsible for meeting the state requirements of the Federal CAA and for establishing the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The CCAA, as amended in 1992, requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. As shown in Table 3.3-6, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

California State Implementation Plan

The CAA mandates that the state submit and implement a SIP for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

Table 3.3-6. Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard
O ₃	1-hour 8-hour	0.09 ppm 0.070 ppm	-- 0.070 ppm
PM ₁₀	24-hour Mean	50 µg/m ³ 20 µg/m ³	150 µg/m ³ --
PM _{2.5}	24-hour Mean	-- 12 µg/m ³	35 µg/m ³ 12 µg/m ³
CO	1-hour 8-hour	20 ppm 9 ppm	35 ppm 9 ppm
NO ₂	1-hour Mean	0.18 ppm 0.030 ppm	100 ppb 0.053 ppm
SO ₂	1-hour 24-hour	0.25 ppm 0.04 ppm	75 ppb --
Pb	30-day Rolling 3-month	1.5 µg/m ³	-- 0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	No federal standard
Hydrogen Sulfide	1-hour	0.03 ppm	
Vinyl Chloride	24-hour	0.01 ppm	
Visibility-reducing particles	8-hour	Extinction coefficient of 0.23 kilometer, visibility of 10 miles or more because of particles when relative humidity is less than 70 percent	

Source: CARB 2016

Notes:

CO – carbon monoxide; mean – annual arithmetic mean; NO₂ – nitrogen dioxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ – particulate matter less than 10 microns in diameter; ppb – parts per billion; ppm – parts per million; SO₂ – sulfur dioxide; µg/m³ – micrograms per cubic meter

Toxic Air Contaminants Regulation

TAC sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources. The TACs that are relevant to the implementation of the project include DPM and airborne asbestos.

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles. The goal of the plan is to reduce diesel PM₁₀ (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.).

Tanner Air Toxics Act & Air Toxics “Hot Spots” Information and Assessment Act

CARB’s Statewide comprehensive air toxics program was established in 1983 with AB 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California’s program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control

measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by SB 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

Regional

Imperial County Air Pollution Control District

The ICAPCD is the agency responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. ICAPCD is responsible for regulating stationary sources of air emissions in Imperial County. Stationary sources that have the potential to emit air pollutants into the ambient air are subject to the Rules and Regulations adopted by ICAPCD. ICAPCD is responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. Monitoring of ambient air quality in Imperial County began in 1976. Since that time, monitoring has been performed by ICAPCD, CARB, and by private industry. There are six monitoring sites in Imperial County from Niland to Calexico. The ICAPCD has developed the following plans to achieve attainment for air quality ambient standards.

- **2009 Imperial County Plan for PM₁₀.** Imperial Valley is classified as nonattainment for federal and state PM₁₀ standards. As a result, ICAPCD was required to develop a PM₁₀ Attainment Plan. The final plan was adopted by ICAPCD on August 11, 2009 (ICAPCD 2009).
- **2013 Imperial County Plan for 2006 24-hour PM_{2.5} for Moderate Nonattainment Area.** U.S. EPA designated Imperial County as nonattainment for the 2006 24-hr PM_{2.5} standard, effective December 14, 2009. The 2013 PM_{2.5} SIP demonstrates attainment of the 2006 PM_{2.5} NAAQS "but-for" transport of international emissions from Mexicali, Mexico. The City of Calexico, California shares a border with the City of Mexicali. Effective July 1, 2014, the City of Calexico was designated nonattainment, while the rest of the SSAB was designated attainment (ICAPCD 2014).
- **2017 Imperial County Plan for 2008 8-hour Ozone Standard.** Because of Imperial County's "moderate" nonattainment status for 2008 federal 8-hour O₃ standards, ICAPCD was required to develop an 8-hour Attainment Plan for Ozone (ICAPCD 2017a). The plan includes control measures which are an integral part of how the ICAPCD currently controls the ROG and NO_x emissions within the O₃ nonattainment areas. The overall strategy includes programs and control measures which represent the implementation of Reasonable Available Control Technology (40 CFR 51.912) and the assurance that stationary sources maintain a net decrease in emissions.

- **2018 Imperial County Plan for PM₁₀.** Imperial Valley is classified as nonattainment for federal and state PM₁₀ standards. The 2018 SIP maintained previously adopted fugitive dust control measures (Regulation VIII) that were approved in the Imperial County portion of the California SIP in 2013 (see above) (ICAPCD 2018a).
- **2018 Imperial County Plan for PM_{2.5}.** U.S. EPA designated Imperial County as nonattainment for the 2018 24-hr PM_{2.5} standard. The 2018 PM_{2.5} SIP concluded that the majority of the PM_{2.5} emissions resulted from transport in nearby Mexico. Specifically, the SIP demonstrates attainment of the 2006 PM_{2.5} NAAQS “but for” transport of international emissions from Mexicali, Mexico. In accordance with the CCAA, the PM_{2.5} SIP satisfies the attainment demonstration requirement satisfying the provisions of the CCAA (ICAPCD 2018b).

In addition to the above plans, the ICAPCD is working cooperatively with counterparts from Mexico to implement emissions reductions strategies and projects for air quality improvements at the border. The two countries strive to achieve these goals through local input from states, county governments, and citizens. Within the Mexicali and Imperial Valley area, the Air Quality Task Force has been organized to address those issues unique to the border region known as the Mexicali/Imperial air shed. The Air Quality Task Force membership includes representatives from federal, State, and local governments from both sides of the border, as well as representatives from academia, environmental organizations, and the public. This group was created to promote regional efforts to improve the air quality monitoring network, emissions inventories, and air pollution transport modeling development, as well as the creation of programs and strategies to improve air quality.

Imperial County Air Pollution Control District Rules and Regulations

ICAPCD has the authority to adopt and enforce regulations dealing with controls for specific types of sources, emissions or hazardous air pollutants, and New Source Review. The ICAPCD Rules and Regulations are part of the SIP and are separately enforceable by the EPA.

Rule 106 – Abatement. The Board may, after notice and a hearing, issue, or provide for the issuance by the Hearing Board, of an order for abatement whenever the District finds that any person is in violation of the rules and regulations limiting the discharge of air contaminants into the atmosphere.

Rule 107 – Land Use. The purpose of this rule is to provide ICAPCD the duty to review and advise the appropriate planning authorities within the District on all new construction or changes in land use which the Air Pollution Control Officer believes could become a source of air pollution problems.

Rule 201 – Permits Required. The construction, installation, modification, replacement, and operation of any equipment which may emit or control Air Contaminants require ICAPCD permits.

Rule 207 – New and Modified Stationary Source Review. Establishes preconstruction review requirements for new and modified stationary sources to ensure the operations of equipment does not interfere with attainment or maintenance of ambient air quality standards.

Rule 208 – Permit to Operate. The ICAPCD would inspect and evaluate the facility to ensure the facility has been constructed or installed and will operate to comply with the provisions of the Authority to Construct permit and comply with all applicable laws, rules, standards, and guidelines.

Rule 310 – Operational Development Fee. The purpose of this rule is to provide ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects throughout the County of Imperial and incorporated cities. All project proponents have the option to either provide off-site mitigation, pay the operational development fee,



or do a combination of both. This rule will assist ICAPCD in attaining the state and federal ambient air quality standards for PM₁₀ and O₃.

Rule 401 – Opacity of Emissions. Sets limits for release or discharge of emissions into the atmosphere, other than uncombined water vapor, that are dark or darker in shade as designated as No.1 on the Ringelmann Chart¹ or obscure an observer’s view to a degree equal to or greater than smoke does as compared to No.1 on the Ringelmann Chart, for a period or aggregated period of more than three minutes in any hour.

Rule 403 – General Limitations on the Discharge of Air Contaminants. Rule 403 sets forth limitations on emissions of pollutants, including particulate matter, from individual sources.

Rule 407 – Nuisance. Rule 407 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 801 – Construction and Earthmoving Activities. Rule 801 aims to reduce the amount of PM₁₀ entrained in the ambient air as a result of emissions generated from construction and other earthmoving activities by requiring actions to prevent, reduce, or mitigate PM₁₀ emissions. This rule applies to any construction and other earthmoving activities, including, but not limited to, land clearing, excavation related to construction, land leveling, grading, cut and fill grading, erection or demolition of any structure, cutting and filling, trenching, loading or unloading of bulk materials, demolishing, drilling, adding to or removing bulk of materials from open storage piles, weed abatement through disking, back filling, travel on-site and travel on access roads to and from the site.

Regulation VIII – Fugitive Dust Rules. Regulation VIII sets forth rules regarding the control of fugitive dust, including fugitive dust from construction activities. The regulation requires implementation of fugitive dust control measures to reduce emissions from earthmoving, unpaved roads, handling of bulk materials, and control of track-out/carry-out dust from active construction sites. Best Available Control Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area
- Application of water or chemical stabilizers to disturbed soils
- Construction and maintenance of wind barriers
- Use of a track-out control device or wash down system at access points to paved roads.

Compliance with Regulation VIII is mandatory for all construction sites, regardless of size; however, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the Air District is required 10 days prior to the commencement of any construction activity. Furthermore, any use of engine(s) and/or generator(s) of 50 horsepower or greater may require a permit through ICAPCD.

¹ The Ringelmann scale is a scale for measuring the apparent density or opacity of smoke.

Southern California Association of Governments – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region’s “Clearinghouse,” collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

On September 3, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020). The RTP/SCS or “Connect SoCal” includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the NAAQS as set forth by the federal CAA. The following SCAG goal is applicable to the project:

- Reduce greenhouse gas emissions and improve air quality.

Imperial County General Plan

The Imperial County General Plan serves as the overall guiding policy for the County. The Conservation and Open Space Element includes objectives for helping the County achieve the goal of improving and maintaining the quality of air in the region. Table 3.3-7 summarizes the VEGA 6 project’s consistency with the applicable air quality goal and objectives from the Conservation and Open Space Element. While this EIR analyzes the project’s consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.3-7. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
<i>Conservation and Open Space Element</i>		
Protection of Air Quality and Addressing Climate Change Goal 7: The County shall actively seek to improve the quality of air in the region.	Consistent	The proposed VEGA 6 project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed VEGA 6 project would improve air quality and reduce GHG emissions by reducing the amount of emissions that would be generated in association with electricity production from fossil fuel burning facilities. Therefore, the proposed VEGA 6 project is consistent with this goal.



Applicable Policies	Consistency Determination	Analysis
Objective 7.1: Ensure that all project and facilities comply with current Federal, State and local requirements for attainment of air quality objectives.	Consistent	The proposed VEGA 6 project would comply with current federal and State requirements for attainment for air quality objectives through conformance with all applicable ICAPCD rules and requirements to reduce fugitive dust and emissions. Further, the VEGA 6 project would comply with the ICAPCD Air Quality CEQA Handbook’s Mandatory Standard Measures (Mitigation Measure AQ-1). Therefore, the proposed VEGA 6 project is consistent with this objective.
Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all federal and state agencies in the effort to attain air quality objectives.	Consistent	The Applicant would cooperate with all federal and State agencies in the effort to attain air quality objectives through compliance with the ICAPCD Air Quality CEQA Handbook’s Mandatory Standard Measures (Mitigation Measure AQ-1). Therefore, the proposed VEGA 6 project is consistent with this objective.

Source: County of Imperial 2016

South Coast Air Quality Management District Rules

SCAQMD is the regional agency responsible for regulating and enforcing air pollution control regulations within the Riverside portion of the SSAB. The most recent Air Quality Management Plan was developed in 2022 and it focuses on identifying control strategies to attain the 2015 8-hour ozone standards of 70 parts per billion. Rules with applicability to the Ramon Substation expansion are described below.

RULE 402

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Odor Emissions. All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

RULE 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earthmoving and grading activities. More specifically, Rule 403 would require watering disturbed surfaces three times per day during grading activities.

Dust Control, Operations. Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the SCAQMD.

County of Riverside General Plan Air Quality Element

The County of Riverside General Plan Air Quality Element identifies goals, policies, and programs that are meant to balance Riverside County's actions regarding land use, circulation, and other issues with their potential effects on air quality. The Air Quality Element addresses ambient air quality standards set forth by the EPA and CARB. The Air Quality Element contains policies designed to establish a regional basis for improving air quality. The following policies from the Air Quality Element are applicable to the Ramon Substation expansion:

- **AQ 1.1:** Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.
- **AQ 1.4:** Coordinate with the SCAQMD and Mojave Desert Air Quality Management District (MDAQMD) to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.
- **AQ 2.1:** The County land use planning efforts shall ensure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.
- **AQ 2.2:** Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.
- **AQ 4.1:** Require the use of all feasible building materials/methods which reduce emissions.
- **AQ 4.6:** Require stationary air pollution sources to comply with applicable air district rules and control measures.
- **AQ 4.7:** To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, Basin, the Environmental Protection Agency, and the California Air Resources Board.
- **AQ 4.9:** Require compliance with SCAQMD Rules 403 and 403.1 and support appropriate future measures to reduce fugitive dust emanating from construction sites.

3.3.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to air quality, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to air quality are considered significant if any of the following occur:

- Conflict with or obstruct implementation of the applicable air quality plan



- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O₃ precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Imperial County Air Pollution Control District

ICAPCD amended the Air Quality Handbook: Guidelines for the Implementation of CEQA on December 12, 2017 (ICAPCD 2017b). ICAPCD established significance thresholds based on the state CEQA thresholds. The handbook was used to determine the proper level of analysis for the VEGA 6 project.

OPERATIONS

Air quality analyses should compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds in Table 3.3-8. Projects can be classified as either Tier 1 or Tier 2 projects, depending on the project’s operational emissions. As shown in Table 3.3-8, Tier 1 projects are projects that emit less than 137 pounds per day of nitrogen oxide (NO_x) or reactive organic gases (ROGs); less than 150 pounds per day of PM₁₀ or SO_x; or less than 550 pounds per day of CO or PM_{2.5}.

Tier 1 projects are not required to develop a Comprehensive Air Quality Analysis Report or an EIR and require the implementation of all feasible mitigation measures listed in Section 7.2 of the ICAPCD’s Air Quality Handbook (ICAPCD 2017b). Alternatively, Tier 2 projects are projects that emit 137 pounds per day of NO_x or ROG or greater; 150 pounds per day of PM₁₀ or SO_x or greater; or 550 pounds per day of CO or PM_{2.5} or greater. Tier 2 projects are required to develop a Comprehensive Air Quality Analysis Report at a minimum and are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures listed in Sections 7.2 and 7.3 of the ICAPCD’s Air Quality Handbook (ICAPCD 2017b).

Table 3.3-8. Imperial County Air Pollution Control District Significance Thresholds for Operation

Criteria Pollutant	Tier 1 Thresholds	Tier 2 Thresholds
NO _x and ROG	Less than 137 pounds per day	137 pounds per day and greater
PM ₁₀ and SO ₂	Less than 150 pounds per day	150 pounds per day and greater
CO and PM _{2.5}	Less than 550 pounds per day	550 pounds per day and greater
Level of Significance	Less than Significant	Significant Impact

Source: ICAPCD 2017b

CO – carbon monoxide; NO_x – nitrogen oxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ - particulate matter less than 10 microns in diameter; ROG - reactive organic gas; SO_x – sulfur oxide.

CONSTRUCTION

For construction projects, the Air Quality Handbook indicates that the significance threshold for NO_x is 100 pounds per day and for ROG is 75 pounds per day. As discussed in the ICAPCD’s Air Quality Handbook, the approach to evaluating construction emissions should be qualitative rather than quantitative. In any case, regardless of the size of the project, the standard mitigation measures for

construction equipment and fugitive PM₁₀ must be implemented at all construction sites. The implementation of discretionary mitigation measures, as listed in Section 7.1 of the ICAPCD's Air Quality Handbook, apply to those construction sites that are 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The mitigation measures found in Section 7.1 of the ICAPCD's handbook are intended as a guide of feasible mitigation measures and are not intended to be an all-inclusive comprehensive list of all mitigation measures. Table 3.3-9 presents the construction emission thresholds that are identified by ICAPCD.

Table 3.3-9. Imperial County Air Pollution Control District Significance Thresholds for Construction Activities

Pollutant	Thresholds
PM ₁₀	150 pounds per day
ROG	75 pounds per day
NO _x	100 pounds per day
CO	550 pounds per day

Source: ICAPCD 2017b

CO – carbon monoxide; NO_x – nitrogen oxide; PM₁₀ - particulate matter less than 10 microns in diameter; ROG - reactive organic gas.

South Coast Air Quality Management District

REGIONAL THRESHOLDS

The SCAQMD has regional significance thresholds for criteria pollutants, as summarized in Table 3.3-10. The SCAQMD's CEQA Air Quality Significance Thresholds (SCAQMD 2023) indicate that any projects in the Basin with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

Table 3.3-10. SCAQMD Maximum Daily Regional Emissions Thresholds

Criteria Pollutant	Regional Construction Threshold (lbs/day)	Regional Operation Thresholds (lbs/day)
NO _x	100	55
VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550
Pb	3	3

Source: SCAQMD 2023

LOCALIZED SIGNIFICANCE THRESHOLDS

Localized Significance Thresholds (LSTs) were developed by the SCAQMD to analyze localized air quality impacts from a proposed project. Use of LSTs in air quality impact analyses is voluntary and at the discretion of the Lead Agency. LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. LST look up tables (SCAQMD 2009) can be used as a screening tool to identify

potentially significant impacts to nearby sensitive receptors. The LST look up tables consist of both construction and operational LSTs for one-, two-, and five-acre proposed projects emitting CO, NOx, PM2.5, and/or PM₁₀ by source receptor area. If these LSTs are exceeded, project-specific modeling may be required. The analysis makes use of methodology included in the *Final LST Methodology* guidance document, published in June 2003 and revised in July 2008, from SCAQMD. For the Ramon substation, localized emissions were evaluated against the LSTs for Source Receptor Area 30 Coachella Valley for a 4-acre site at a 200m receptor distance (nearest receptor is 0.2 miles away but 200m is used to be conservative). The total acreage disturbed would be 4 acres per day rough grading and fine grading activities. It should be noted that since the look-up tables identify thresholds at only 1 acre, 2 acres, and 5 acres, the thresholds were scaled to 4 acres as shown in Table 3.3-11 for this analysis.

Table 3.3-11. LST Construction Thresholds

	NOx	CO	PM10	PM2.5
2 acre threshold	425	7174	89	28
5 acre threshold	547	10178	112	37
Calculated 4 acre threshold	506	9177	104	34

Diesel Toxic Air Contaminants Risk Thresholds

There are inherent uncertainties in risk assessment with regard to the identification of compounds as causing cancer or other health effects in humans, the cancer potencies and reference exposure levels of compounds, and the exposure that individuals receive. It is common practice to use conservative (health protective) assumptions with respect to uncertain parameters. The uncertainties and conservative assumptions must be considered when evaluating the results of risk assessments.

There is debate as to the appropriate levels of risk assigned to diesel particulates. The U.S. EPA has not yet declared diesel particulates as a toxic air contaminant. Using the CARB threshold, a risk concentration of one in one million (1:1,000,000) per micrograms per cubic meter (µg/m³) of continuous 70-year exposure is considered less than significant.

Methodology

VEGA 6

The analysis criteria for air quality impacts are based on the approach and methods discussed in the ICAPCD’s Air Quality Handbook. The proposed VEGA 6 project would result in both short-term and long-term emissions of air pollutants associated with construction and operation of the proposed VEGA 6 project.

Construction emissions would include exhaust from the operation of conventional construction equipment, on-road emissions from employee vehicle trips and haul truck trips, fugitive dust as a result of grading, and vehicle travel on paved and unpaved surfaces.

Once fully constructed, the proposed VEGA 6 project would be operated on an unstaffed basis and be monitored remotely, with periodic on-site personnel visitations for security, maintenance and system monitoring. Therefore, no full-time site personnel would be required on-site during operations and employees would only be on-site up to two times per year to wash the panels. As the project’s PV

arrays produce electricity passively, maintenance requirements are anticipated to be very minimal. Any required planned maintenance activities would generally consist of equipment inspection and replacement and would be scheduled to avoid peak load periods. Any unplanned maintenance would be responded to as needed, depending on the event. Operational emissions would include vehicle trips from employees who commute to and from the VEGA 6 project site (i.e., to control site operation and perform equipment maintenance).

The ICAPCD's Air Quality Handbook establishes aggregate emission calculations for determining the potential significance of a project. In the event that the emissions exceed the established thresholds (Table 3.3-8 and Table 3.3-9), air dispersion modeling may be conducted to assess whether the project results in an exceedance of an air quality standard.

The *Air Quality and Greenhouse Gas Assessment for the VEGA SES 6 Solar and Battery Storage Project* was prepared by ECORP Consulting, Inc. (Appendix C1 of this EIR). This report was used in the evaluation of project-related construction and operational air quality impacts. The emissions of criteria air pollutants were estimated using methodologies recommended by the ICAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2.² Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Imperial County as well as timing and equipment identified by the project proponent. Operational air pollutant emissions were based on the project site plans. Associated emissions calculations and assumptions are included in Appendix C1 of this EIR.

The air quality impacts are mainly attributable to construction phases of the VEGA 6 project, including site preparation, facility installation, and gen-tie and site restoration. Operational impacts include inspection and maintenance operations, which includes washing of the solar panels.

Ramon Substation Expansion

Similar to VEGA 6, construction emissions would include exhaust from the operation of conventional construction equipment, on-road emissions from employee vehicle trips and truck trips, and fugitive dust as a result of grading and vehicle travel on paved surfaces. It is assumed that there would be no substantial earthmoving activities and that any cut/fill would be balanced on site. Workers would be able to access the project site via paved roads (Ramon Road) and through the existing Ramon Substation. Project work would begin in early 2024 for a total duration of 180 construction working days.

As discussed at the beginning of this Section 3.3, air pollutant emissions for construction for the proposed Ramon Substation expansion were estimated using CalEEMod, version 2020.4.0. Regional air pollutant emissions were compared to SCAQMD daily thresholds for ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} while the on-site localized emissions were compared to the LSTs for NO_x, CO, SO_x, PM₁₀, and PM_{2.5} consistent with SCAQMD guidance. The CalEEMod assumptions and outputs generated for the proposed Ramon Substation Expansion are contained in Appendix C2 of this EIR.

Once fully constructed, the proposed Ramon Substation Expansion would be operated and maintained together with the existing Ramon Substation and would not require any additional employees. Therefore, no air quality modeling was performed for the operations and maintenance portion of the Ramon Substation Expansion.

² CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

Impact Analysis

Impact 3.3-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

VEGA 6

The air quality attainment plan (AQAP) for the SSAB, through the implementation of the air quality management plan (AQMP) (previously AQAP) and SIP for PM₁₀, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the 2017 Clean Air Plan. The 2017 Clean Air Plan strategy is based on projections from local general plans. Projects that are consistent with the local general plan are considered consistent with the regional air quality plan. In addition, AQMP control measures and related emission reduction estimates are based upon emissions projections for future development scenarios derived from land use, population, and employment characteristics defined in consultation with local governments. Conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions.

The proposed project must demonstrate compliance with all ICAPCD applicable rules and regulations, as well as local land use plans and population projections. As the project does not contain a residential component, the project would not result in an increase in the regional population. While contributions to energy supply may induce population growth, the proposed solar energy project would not significantly increase employment or growth within the region. Moreover, development of the proposed project would increase the amount of renewable energy and help California meet its RPS.

As shown in Table 3.3-7, the project is consistent with the applicable air quality goal and objectives from the General Plan. The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from fossil fuel burning facilities.

Furthermore, the thresholds of significance adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented in Table 3.3-8 and Table 3.3-9 would not conflict with or obstruct implementation of the applicable air quality plans. The following analysis is broken out by a discussion of potential impacts during construction of the project followed by a discussion of potential impacts during operation of the project.

Construction Emissions. Air emissions are generated during construction through activities. Two basic sources of short-term emissions will be generated through project construction: operation of heavy-duty equipment (i.e., excavators, loaders, haul trucks) and the creation of fugitive dust during clearing and grading. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Construction emissions vary from day-to-day depending on the number of workers, number, and types of active heavy-duty vehicles and equipment, level of activity, the prevailing meteorological conditions, and the length over which these activities occur.

Project construction is anticipated to last approximately 12 to 18 months. Construction activities would primarily involve demolition and grubbing, grading of the project site to establish access roads and pads for electrical equipment, trenching for underground electrical collection lines, and the installation of solar equipment and security fencing, and the offsite infrastructure work required for the gen-tie transmission line.

Emissions associated with project off-road equipment, worker commute trips, and ground disturbance were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements.

Table 3.3-12 shows the predicted maximum daily emissions attributable to project construction with implementation of ICAPCD Regulation VIII measures (Mitigation Measure AQ-1), which is mandatory for all construction sites, regardless of size. Regulation VIII requires all unpaved roadways, on and off-site, to be conditioned and maintained with soil stabilizers to reduce dust opacity to no more than 20 percent; all unpaved disturbed surfaces, on and off-site, to be stabilized with a dust suppressant, watering, or soil stabilizers to reduce opacity to no greater than 20 percent; and to reduce vehicle speed to no greater than 15 mph on all unpaved surfaces. Construction emissions are short-term and of temporary duration lasting only as long as project construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds ICAPCD thresholds of significance. As shown in Table 3.3-12, the project’s daily construction emissions would not exceed the ICAPCD thresholds for ROG, Nox, CO, SO₂ and PM_{2.5}. However, the project’s daily construction emissions would exceed the ICAPCD threshold for PM₁₀, even with implementation of ICAPCD Regulation VIII (Mitigation Measure AQ-1). This potential impact is considered significant. A predominate source of the project’s PM₁₀ emissions is workers commuting to and from the project site on unpaved roads. Commuter vehicles traveling over the exposed soils of unpaved roads generates substantial amounts of fugitive PM₁₀ emissions. The majority of roadways leading to the project site are paved; however, 1.8 miles of unpaved roadway would be used by commuting workers and vendors. Mitigation Measure AQ-2 is proposed to reduce PM₁₀ emissions to levels below the significance threshold. Mitigation Measure AQ-2 would require the project contractor to use soil stabilizers on the 1.8 miles of unpaved roadway used for construction worker access to the project site.

Table 3.3-12. VEGA 6 Project Construction-Generated Emissions (Unmitigated)

Construction Year	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Solar Facility and Battery Energy Storage System						
Construction 2022	9.53	97.14	68.64	0.16	310.81	45.44
Construction 2023	6.22	61.93	50.73	0.12	597.59	61.16
ICAPCD Significance Threshold	75	100	550	N/A	150	N/A
Exceed ICAPCD Threshold?	No	No	No	No	Yes	No
Gen-tie Transmission Line						
Construction 2022	8.97	67.76	70.65	0.19	559.07	58.36



Construction Year	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
ICAPCD Significance Threshold	75	100	550	N/A	150	N/A
Exceed ICAPCD Threshold?	No	No	No	No	Yes	No

Source: Appendix C1 of this EIR

Note: Pounds per day taken from the season with the highest output.

As shown in Table 3.3-13, with implementation of Mitigation Measure AQ-2, the project’s daily construction emissions of PM₁₀ would not exceed the ICAPCD threshold.

In the event that onsite construction was to occur simultaneously as construction of the proposed offsite gen-tie transmission line, ICAPCD significance thresholds of Nox could potentially be exceeded. The project applicant would implement Mitigation Measure AQ-3, which requires the construction equipment list to be submitted periodically to ICAPCD to perform a NO_x analysis to verify that equipment use does not exceed significance thresholds. To further reduce dust emissions during project construction, the project applicant will implement Mitigation Measure AQ-4, which limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Implementation of Mitigation Measures AQ-3 and AQ-4 would provide reduction strategies to further improve air quality and ensure that this potential impact would remain less than significant.

Table 3.3-13. Project Construction – Generated Emissions (Mitigated)

Construction Year	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Solar Facility and Battery Energy Storage System						
Construction 2022	2.28	11.09	83.73	0.16	57.10	11.02
Construction 2023	1.88	7.28	63.15	0.12	90.87	9.46
ICAPCD Significance Threshold	75	100	550	N/A	150	N/A
Exceed ICAPCD Threshold?	No	No	No	No	No	No
Gen-tie Transmission Line						
Construction 2022	8.97	67.76	99.88	0.19	85.19	58.36
ICAPCD Significance Threshold	75	100	550	N/A	150	N/A
Exceed ICAPCD Threshold?	No	No	No	No	No	No

Source: Appendix C1 of this EIR

Note: Pounds per day taken from the season with the highest output.

Operational Emissions. Although limited, project implementation would result in long-term operational emissions of criteria air pollutants such as ROG, NO_x, CO, SO₂, PM₁₀, O₃ and PM_{2.5}. Project-generated increases in emissions would be predominately associated with motor vehicle use for routine maintenance work and site security as well as panel upkeep and cleaning. Long-term operational emissions attributable to the project are summarized in Table 3.3-14 and compared to ICAPCD operational significance thresholds.

Table 3.3-14. Operational-Related Emissions – Solar and Battery Storage Facilities

Emission Source	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area	6.53	0.00	0.03	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.02	0.06	0.00	0.24	0.02
Total:	6.53	0.02	0.09	0.00	0.24	0.02
ICAPCD Significance Threshold	137	137	150	550	550	150
Exceed ICAPCD Threshold?	No	No	No	No	No	No
Winter Emissions						
Area	6.53	0.00	0.03	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.02	0.04	0.00	0.24	0.02
Total:	6.53	0.02	0.07	0.00	0.24	0.02
ICAPCD Significance Threshold	137	137	150	550	550	150
Exceed ICAPCD Threshold?	No	No	No	No	No	No

Source: Appendix C1 of this EIR

Notes: Operational emissions account for one vehicle trip per day. It is noted that this is a conservative estimate and many days will have no operational related vehicle trips.

As shown in Table 3.3-14, the project’s emissions would not exceed any ICAPCD’s thresholds for any criteria air pollutants during operation. The proposed project will be required to implement all of the ICAPCD Regulation VIII, fugitive dust control measures during construction and operation of the proposed project. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate stationary sources. Although no significant air quality impact would occur during operation, the project applicant is required to submit a Dust Suppression Management Plan for both construction and operation in order to reduce fugitive dust emissions. Implementation of Mitigation Measures AQ-5 through AQ-7 would ensure that a Dust Suppression Management Plan is implemented, thereby ensuring that this potential impact would remain less than significant. To further reduce dust emissions during operation of the project, the project applicant will implement Mitigation



Measure AQ-4, which limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less.

As described above, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections and comparing assumed emissions in the AQMP to proposed emissions. Because the proposed project complies with local land use plans and population projections and would not exceed ICAPCD’s regional mass daily emissions thresholds during construction and operation with implementation of mitigation, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This is considered a less than significant impact.

Ramon Substation Expansion

Construction Emissions. Construction activities associated with the Ramon Substation expansion would result in emissions of ROG, NOx, SOx, CO, PM10, and PM2.5. Construction-related emissions are expected from the following construction activities: site preparation, grading, structural facilities, and paving.

Emissions associated with project off-road equipment, worker commute trips, and ground disturbance were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Table 3.3-15 shows the predicted maximum daily emissions attributable to project construction by construction phase. (Note that none of the construction phases overlap.) As shown in Table 3.3-15, construction of the Ramon Substation expansion would not exceed SCAQMD’s thresholds. This is considered a less than significant impact.

Table 3.3-15. Ramon Substation Expansion Construction-Generated Regional Emissions (Unmitigated)

Construction Phase	Pollutant (pounds per day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Site Preparation	1.3	11.9	10.7	< 0.1	3.6	2.0
Grading	1.8	18.4	12.4	< 0.1	4.3	2.3
Structural Facilities	1.3	11.0	12.9	< 0.1	1.1	0.6
Paving	1.4	6.9	10.6	< 0.1	0.5	0.4
Daily Maximum	1.8	18.4	12.9	< 0.1	4.3	2.3
SCAQMD Threshold	75	100	550	150	150	55
Exceedance?	No	No	No	No	No	No

Source: Appendix C2 of this EIR

Operational Emissions. The proposed Ramon Substation expansion would not require any long-term employees during operations. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the proposed expansion area. The proposed Ramon Substation expansion would not generate operational emissions and no impact would occur.

Mitigation Measure(s)

VEGA 6

AQ-1

Fugitive Dust Control. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process.

ICAPCD Standard Measures for Fugitive Dust (PM₁₀) Control

- All disturbed areas, including bulk material storage, which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material, such as vegetative ground cover.
- All on-site and offsite unpaved roads will be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.
- All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

Standard Mitigation Measures for Construction Combustion Equipment

- Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

- When commercially available, replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

AQ-2 During construction activities, the construction contractor shall employ the following PM₁₀ reducing measures:

- All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/ square yard of chemical dust suppressant.
- All vehicles accessing the project site on unpaved roads shall be limited to a speed of 15 miles per hour.

The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.

AQ-3 **Construction Equipment.** Construction equipment shall be equipped with an engine designation of EPA Tier 2 or better (Tier 2+). A list of the construction equipment, including all off-road equipment utilized at each of the projects by make, model, year, horsepower and expected/actual hours of use, and the associated EPA Tier shall be submitted to the County Planning and Development Services Department and ICAPCD prior to the issuance of a grading permit. The equipment list shall be submitted periodically to ICAPCD to perform a NO_x analysis. ICAPCD shall utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds. The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.

AQ-4 **Speed Limit.** During construction and operation of the proposed project, the applicant shall limit the speed of all vehicles operating onsite on unpaved roads to 15 miles per hour or less.

AQ-5 **Dust Suppression.** The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/ square yard of chemical dust suppressant. The project applicant shall apply chemical stabilization as directed by the product manufacturer to control dust between the panels as approved by ICAPCD, and other non-used areas (exceptions will be the paved entrance and parking area, and Fire Department access/emergency entry/exit points as approved by Fire/Office of Emergency Services [OES] Department).

AQ-6 **Dust Suppression Management Plan.** Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain ICAPCD and Imperial County Planning and Development Services Department (ICPDS) approval.

AQ-7 **Operational Dust Control Plan.** Prior to issuance of a Certificate of Occupancy, the applicant shall submit an operations dust control plan and obtain ICAPCD and ICPDS approval. ICAPCD Rule 301 Operational Fees apply to any project applying for a building permit. At the time that building permits are submitted for the proposed project, ICAPCD shall review the project to determine if Rule 310 fees are applicable to the project.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce the project's PM₁₀ emissions during construction to a level below ICAPCD's significance threshold. Implementation of Mitigation Measures AQ-3 and AQ-7 would provide reduction strategies to further improve air quality and ensure that this potential impact would remain less than significant. Given the above, the proposed project would not conflict with implementation of applicable air quality plans, and impacts would be less than significant impact.

Impact 3.3-2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O₃ precursors)?

VEGA 6

As shown in Table 3.3-2, the criteria pollutants for which the project area is in State non-attainment under applicable air quality standards are O₃ and PM₁₀. The ICAPCD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Impact 3.3-1, the emissions of criteria pollutants from project construction and operation activities would be below the ICAPCD thresholds of significance with implementation of mitigation. Furthermore, the proposed project will be required to implement all of the ICAPCD Regulation VIII, fugitive dust control measures during construction and operation of the proposed project. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate stationary sources. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

Ramon Substation Expansion

As shown in Table 3.3-3, the criteria pollutants for which the Ramon Substation expansion area is in State non-attainment under applicable air quality standards are O₃ and PM₁₀. The SCAQMD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Impact 3.3-1, the emissions of criteria pollutants from construction and operation activities would be below SCAQMD's significance thresholds. Therefore, the proposed Ramon Substation expansion would not result in a cumulatively considerable net increase of any criteria pollutant, and this is considered a less than significant impact.

Mitigation Measure(s)

VEGA 6

No mitigation measures beyond AQ-1 through AQ-7 are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.3-3 Would the project expose sensitive receptors to substantial pollutant concentrations?

VEGA 6

According to the *Air Quality and Greenhouse Gas Assessment for the VEGA SES 6 Solar and Battery Storage Project* (Appendix C1 of this EIR), the nearest existing noise-sensitive land use to the solar energy facility site is a single-family residence located 2,725 feet from the northeastern corner of the site. During construction occurring offsite along the gen-tie transmission line route to the IID electrical grid line, the nearest sensitive receptor would be 970 feet away.

The ICAPCD CEQA Guidelines detail that any development project that is located within close proximity to sensitive receptors and where the proposed project either 1) Has the potential to emit toxic or hazardous pollutant; or 2) Exceeds the ICAPCD criteria pollutant thresholds for construction and operation of the proposed project, must be referred to the ICAPCD for review. In addition, any proposed industrial or commercial project located within 1,000 feet of a school must be referred to the ICAPCD for review.

As discussed above in Impact 3.3-1, the proposed VEGA 6 project would not exceed the ICAPCD criteria pollutant threshold from either construction or operation of the proposed VEGA 6 project with implementation of mitigation. However, construction and operation of the proposed VEGA 6 project would have the potential to emit TAC emissions, which have been analyzed separately below.

Construction-Generated Air Contaminants. Construction of the VEGA 6 project would result in temporary, short-term project-generated emissions of diesel particulate matter (DPM), ROG, NO_x, CO, and PM₁₀ from the exhaust of off-road, heavy-duty diesel equipment for project construction; soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SSAB which encompasses the VEGA 6 project area is designated as a nonattainment area for federal O₃, PM_{2.5} and PM₁₀ standards and is also a nonattainment area for the state standards for O₃ and PM₁₀. Thus, existing O₃ and PM₁₀ levels in the SSAB are at unhealthy levels during certain periods. However, as shown in Table 3.3-13, the VEGA 6 project would not exceed the ICAPCD significance thresholds for construction emissions with implementation of Mitigation Measures AQ-1 and AQ-2.

The health effects associated with O₃ are generally associated with reduced lung function. Because the VEGA 6 project would not involve construction activities that would result in O₃ precursor emissions (ROG or NO_x) in excess of the ICAPCD thresholds, the VEGA 6 project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The VEGA 6 project would not involve activities that would result in CO emissions in excess of the ICAPCD thresholds. Thus, the VEGA 6 project's CO emissions would not contribute to the health effects associated with this pollutant.

PM₁₀ and PM_{2.5} contain microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. PM exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms

such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. The potential cancer risk from the inhalation of DPM outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Based on the emission modeling conducted, the maximum onsite construction-related daily emissions of exhaust PM₁₀, considered a surrogate for DPM and includes emissions of exhaust PM_{2.5}, would be 2.89 and 2.03 pounds per day for the solar and battery storage facilities in construction years 2022 and 2023, respectively; and 2.82 pounds per day in 2022 for the gen-tie transmission line (see Appendix C1 of this EIR). PM₁₀ exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O₃ and NO_x, the VEGA 6 project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the ICAPCD's thresholds. Additionally, the VEGA 6 project would be required to comply with ICAPCD's Regulation VIII for fugitive dust control, as described in Mitigation Measure AQ-1, which limit the amount of fugitive dust generated during construction. Accordingly, the VEGA 6 project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. As such, construction of the proposed VEGA 6 project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operational Air Contaminants. Operation of the proposed VEGA 6 project would not result in the development of any substantial sources of air toxics. There would be no stationary sources associated project operations; nor would the VEGA 6 project attract additional mobile sources that spend long periods queuing and idling at the site. Onsite project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors as the predominant operational emissions associated with the proposed VEGA 6 project would be routine maintenance work and site security as well as panel upkeep and cleaning. Therefore, the VEGA 6 project would not be a substantial source of TACs. The project will not result in a high carcinogenic or non-carcinogenic risk during operation. As such, a less than significant TAC impact would occur during the ongoing operations of the project.

CO Hot Spot. A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The Bay Area Air Quality Management District, the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

The proposed VEGA 6 project is anticipated to result in no more than one daily operational traffic trip. It is noted that this is a conservative estimate, and many days will have no operational-related vehicle trips. Thus, the VEGA 6 project would not generate traffic volumes at any intersection of more than



100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the project traffic exceeding CO values.

In summary, construction and operation of the proposed VEGA 6 project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Ramon Substation Expansion

Construction. During construction, the proposed Ramon Substation expansion has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis of localized construction emissions compared to the applicable LSTs established by the SCAQMD (Table 3.3-16).

As shown in Table 3.3-16, localized construction emissions would not exceed the applicable SCAQMD LSTs for any criteria pollutant. Therefore, construction of the Ramon Substation Expansion would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

Table 3.3-16. Localized Construction Emissions

	lbs/day			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum on-site emissions	18.3	11.9	4.2	2.2
SCAQMD Localized Threshold	506	9,177	104	34
Exceedance?	No	No	No	No

Source: Appendix C2 of this EIR

Operation. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed Ramon Substation expansion does not include such uses and, thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed. No impact would occur.

CO Hot Spot. The proposed Ramon Substation expansion would not require any long-term employees during operations. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the proposed expansion area. Therefore, the proposed Ramon Substation expansion would not generate operational traffic trips and would not result in a CO Hot Spot impact.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.3-4 Would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

VEGA 6

An odor impact depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies.

Among possible physical harms is inhalation of VOCs that cause smell sensations in humans. These odors can affect human health in four primary ways:

- The VOCs can produce toxicological effects
- The odorant compounds can cause irritations in the eye, nose, and throat
- The VOCs can stimulate sensory nerves that can cause potentially harmful health effects
- The exposure to perceived unpleasant odors can stimulate negative cognitive and emotional responses based on previous experiences with such odors

Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The construction and operation of a solar facility, BESS, and gen-tie line is not an odor producer.

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. The project would comply with standard construction requirements which include limitations of when construction may occur. Furthermore, the proposed project would be required to adhere to ICAPCD Rule 407 which limits the discharge of any emissions that create odors in quantities that may cause a nuisance or annoyance to any considerable number of persons. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur, and no mitigation would be required.

The proposed VEGA 6 project would consist of the development of a solar energy facility, BESS, and gen-tie line which do not include any components that are a known source of odors. Therefore, a less than significant odor impact would occur, and no mitigation would be required.

Ramon Substation Expansion

A substation is not considered a land use that would be an odor producer. The proposed Ramon Substation expansion could produce odors during proposed construction activities resulting from construction equipment exhaust and application of asphalt. However, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction are temporary, short-term, and intermittent in nature, and would cease upon the completion of construction. Additionally, construction activities would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. The proposed Ramon Substation expansion would not create objectionable odors affecting



a substantial number of people during construction, and short-term impacts would be less than significant.

No objectionable odors affecting a substantial number of people are anticipated during long term operation. The operation of the project does not involve odor-generating uses. A less than significant impact is identified for this issue area.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.3.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Similar to construction activities, decommissioning and restoration of the project site would generate air emissions. A summary of the daily construction emissions for the VEGA 6 project is provided in Table 3.3-12 (unmitigated) and Table 3.3-13 (with mitigation). Solar equipment has a lifespan of approximately 20 to 25 years. The emissions from on- and off-road equipment during decommissioning are expected to be significantly lower than project construction emissions, as the overall activity would be anticipated to be lower than project construction activity. No significant air quality impacts are anticipated during decommissioning and restoration of the VEGA 6 project site. However, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate stationary sources. Therefore, a less than significant impact is identified during decommissioning and site restoration of the VEGA 6 project site.

Residual

The proposed VEGA 6 project would not result in short-term significant air quality impacts during construction. Operation of the VEGA 6 project, subject to the approval of a CUP, would be consistent with applicable federal, state, regional, and local plans and policies. The VEGA 6 project would not result in any residual operational significant and unavoidable impacts with regards to air quality.

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3.4 Biological Resources

This section identifies the biological resources that may be impacted by the proposed project. The following identifies the existing biological and jurisdictional resources in the VEGA 6 project area and Ramon Substation expansion area, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project. The information for this section is summarized from the following reports:

- *Biological Technical Report – VEGA SES 6 Solar Project* (Appendix D1 of this EIR) prepared by ECORP Consulting, Inc.
- *Biological Resources Report – Ramon Substation Expansion* (Appendix D2 of this EIR) prepared by HDR
- *Aquatic Resources Delineation – VEGA SES 6 Solar Project* (Appendix E1 of this EIR) prepared by ECORP Consulting, Inc.
- *Aquatic Resources Survey Report – Ramon Substation Expansion* (Appendix E2 of this EIR) prepared by HDR

As part of the *Biological Technical Report – VEGA SES 6 Solar Project*, ECORP Consulting, Inc. conducted a literature review, desktop survey, and biological reconnaissance survey of the VEGA 6 project site to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine the potential impacts of the VEGA 6 project on biological resources.

For the purposes of this EIR, the following terms are used and defined below:

- VEGA 6 project area refers to the areas proposed to be directly affected by implementation of the VEGA 6 project and corresponds to the VEGA 6 solar facility site and proposed gen-tie alignment.
- VEGA 6 biological survey area (BSA) refers to the VEGA 6 project area and a 500-foot buffer around the VEGA 6 project area, potentially subject to temporary or indirect impacts.
- VEGA 6 aquatic resources study area refers to the VEGA 6 project area plus a 50-foot buffer.
- Ramon Substation expansion area refers to the area proposed to be directly affected by implementation of the proposed Ramon Substation expansion.
- Ramon Substation BSA refers to Ramon Substation expansion area plus 500-foot buffer. Ramon Substation aquatic resources study area refers to the Ramon Substation expansion area plus 50-foot buffer.

3.4.1 Existing Conditions

Vegetation Communities and Land Cover Types

VEGA 6

The majority of vegetation and land cover types mapped within the VEGA 6 project area consists of creosote bush scrub, disturbed creosote bush scrub, and agriculture. The acreage of each vegetation

community and land cover types is summarized in and depicted in Figure 4 of the *Biological Technical Report – VEGA SES 6 Solar Project* (Appendix D1 of this EIR).

Table 3.4-1. Vegetation Communities and Land Cover Types in VEGA 6 Project Area

Vegetation Community and Land Cover Type ¹	Acres
Active Agriculture	2.088
Fallow Agriculture	0.122
Creosote Bush Scrub	183.163
Disturbed Creosote Bush Scrub	139.541
Disturbed Tamarisk Thickets	1.948
Disturbed	0.454
Urban/Developed – Dirt Roads	5.081
Total	332.398

Source: Appendix D1 of this EIR

Detailed descriptions of the applicable vegetation communities and land cover types occurring within the VEGA 6 project area are described below.

CREOSOTE BUSH SCRUB

Creosote bush scrub is the most characteristic vegetation of the California desert and is found on alluvial fans, bajadas, upland slopes, and washes. Creosote bush scrub is dominated by a nearly monotypic stand of creosote bush with an open canopy and an herbaceous layer of seasonal annuals and perennials. This community is dominant in the solar facility site and western portion of the gen-tie alignment. This community has sparser vegetation overall. Earthen mounds dominated by mesquite were also present within this vegetation community in the northeastern portion of the parcel.

DISTURBED CREOSOTE BUSH SCRUB

Disturbed creosote bush scrub is creosote bush scrub that has been previously altered. In the VEGA 6 project area, this vegetation cover is characterized as sparser, and in some areas completely lacked vegetation other than a few creosote bush shrubs. Other plant species observed included scattered individuals of tamarisk (*Tamarix* sp.) within ephemeral drainages.

DISTURBED TAMARISK THICKETS

Disturbed tamarisk thickets are tamarisk thickets that have been previously altered. In the VEGA 6 project area, this vegetation cover is characterized as sparser, and in some areas completely lacked vegetation other than a few tamarisk shrubs. Other plant species observed included scattered individuals of alkali goldenbush.

ACTIVE AGRICULTURE

Active agriculture consists of row crops that include planted, typically monotypic rows of crops of annual and perennial species with open space between rows. Species composition frequently changes by season and year. Row crops often occur in upland areas with high soil quality, or floodplains, and are almost always artificially irrigated. This land cover was observed to the east of the solar energy facility site. Common crops observed were alfalfa, lemon, date palm, and squash.

FALLOW AGRICULTURE

Fallow agricultural lands include remnant signs of row crops with open space between rows. Agricultural lands often occur in upland areas with high soil quality, or floodplains, and are almost always artificially irrigated. This land cover was observed periodically along the gen-tie alignment and north of the solar energy facility site. These areas were adjacent to active agriculture and consisted primarily of tilled land with no vegetation. One area of fallow agriculture appeared to be vegetated with remnant sorghum (*Sorghum* sp.).

DISTURBED

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, equipment staging, and OHV use, but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Within the VEGA 6 project area, the disturbed lands consisted primarily of bare ground with quailbush, arrow weed, saltgrass, hairy crab grass (*Digitaria sanguinalis*), Mediterranean grass, mustard, and Saharan mustard (*Brassica tournefortii*) at low cover. Some area exhibited regrowth of native species such as creosote bush.

URBAN/DEVELOPED

Urban/Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. In the VEGA 6 project area, this land cover consisted of private residences and farming operations (not including the agricultural fields) and compacted dirt roads.

Ramon Substation Expansion

Based on a review of historic aerial photographs [Historic Aerials (1959-2020) and Google Earth (1996-2023)] the survey area was cleared of vegetation prior to May 2002 for the creation of the existing Ramon Substation and associated transmission line poles and portions been routinely disturbed since that time.

Vegetation onsite consisted of three land cover types with the predominant land cover type as Developed/Ornamental.

DEVELOPED/ORNAMENTAL

Within the Ramon Substation BSA, developed/ornamental land includes paved roads, electric substations, areas where non-native ornamental species and landscaping have been installed, and bare ground with compacted soils that no longer support vegetation. A total of 17.15 acres of developed/ornamental occurs within the Ramon Substation BSA. Approximately 1.56 acres of planted ornamental vegetation occurs as a strip of land just north of Ramon Road, in front of the existing substation.

CREOSOTE BUSH SCRUB

Within the Ramon Substation BSA, creosote bush scrub occurs primarily east and south of the existing Ramon Substation, and the northern portion of the BSA. This vegetation community covers approximately 35.02 acres of the BSA.

DISTURBED CREOSOTE BUSH SCRUB

Within the Ramon Substation BSA, disturbed-creosote bush scrub occurs to the north of the existing Ramon Substation and covers a total of 11.57 acres of the BSA.

Sensitive Natural Communities

VEGA 6

Special status natural communities are those that are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special status plants or animals occurring in those habitats. Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents.

According to CDFW's Sensitive Natural Communities List, there are no sensitive vegetation communities within the VEGA 6 project area (CDFW 2023).

Ramon Substation Expansion

According to CDFW's Sensitive Natural Communities List, there are no sensitive vegetation communities within the Ramon Substation expansion area (CDFW 2023).

U.S. Fish and Wildlife Service Designated Critical Habitat

VEGA 6

The VEGA 6 project area is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for Peirson's milk-vetch (*Astragalus magdalenae* var. *peirsonii*) located approximately 24 miles to the northeast of the VEGA 6 project area, and desert tortoise (*Gopherus agassizii*) critical habitat located approximately 34 miles to the northeast of the VEGA 6 project area.

Ramon Substation Expansion

The Ramon Substation BSA is located within the USFWS-designated critical habitat for the Coachella Valley fringe-toed lizard (*Uma inornate*).

Special-Status Species Assessment

VEGA 6

LITERATURE REVIEW

The literature review resulted in 11 special-status plant and 30 special-status wildlife species that have historically been recorded in the vicinity of the VEGA 6 project area.

BIOLOGICAL RECONNAISSANCE SURVEY

The biological reconnaissance survey was conducted on September 29 to 30, 2020 and August 3 to 5, 2021, by ECORP. The survey identified the potential for occurrence of sensitive species, vegetation communities, or habitats that could support sensitive wildlife and included an analysis of site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

POTENTIAL FOR OCCURRENCE DETERMINATIONS

Special-status species reported for the region in the literature review or for which suitable habitat occurs in the VEGA 6 BSA were assessed for their potential to occur within the VEGA 6 BSA based on the following guidelines (Appendix D1 of this EIR):

Present: The species was observed onsite during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs within the BSA and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the BSA and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the BSA; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the project site.

Low: Limited or marginal habitat for the species occurs within the BSA and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the BSA; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.

Presumed Absent: Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist onsite; or the known geographic range of the species does not include the BSA.

PLANT SPECIES

Twelve special-status plant species have been recorded within 5 miles of the VEGA 6 project area, according to the CNDDDB, IPaC, and CNPSEI. Of all available records, 11 special-status plant species were identified as having the potential for occurrence within the vicinity of the VEGA 6 project area.

The following plant species were found to have a low potential to occur in the VEGA 6 project area:

- Salton milk-vetch (*Astragalus crotalariae*)
- Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*)
- gravel milk-vetch (*Astragalus sabulonum*)
- Emory's crucifixion-thorn (*Castela emoryi*)
- Abrams' spurge (*Euphorbia abramsiana*)
- flat-seeded spurge (*Euphorbia platysperma*)
- ribbed cryptantha (*Johnstonella costata*)
- Torrey's box-thorn (*Lycium torreyi*)
- sand food (*Pholisma sonora*)
- Thurber's pilostyles (*Pilostyles thurberi*)
- Orcutt's woody-aster (*Xylorhiza orcuttii*)

WILDLIFE SPECIES

The literature search documented 30 special-status wildlife species in the vicinity of the VEGA 6 project area, four of which are federally or state listed. Of the 30 special-status wildlife species identified in the literature review, four were found to be present within the VEGA 6 survey area, four were found to have a high potential to occur, four were found to have a moderate potential to occur, and eight were found to have a low potential to occur; the remaining 10 species are presumed absent from the VEGA 6 BSA.

Present: The following species were observed in the VEGA 6 BSA during the reconnaissance survey (Figure 3.4-1):

- California horned lark (*Eremophila alpestris* ssp. *actia*). California horned lark is a CDFW Watch List (WL) species. The creosote bush scrub and disturbed creosote bush scrub throughout the VEGA 6 project area and within the buffer provides both foraging and nesting potential habitat. Approximately 12 individuals were observed foraging within the disturbed creosote bush scrub and disturbed areas of the southern portion of the solar facility site. No CNDDDB records occur within 5 miles of the VEGA 6 project area.
- Loggerhead shrike (*Lanius ludovicianus*). Loggerhead shrike is a CDFW California Species of Special Concern (SSC). The VEGA 6 project area provides both foraging and nesting habitat. One individual was observed perching and vocalizing on tamarisk alongside a dirt irrigation canal adjacent to agricultural fields in the VEGA 6 survey area. No CNDDDB records occur within 5 miles of the VEGA 6 project area.
- Northern harrier (*Circus hudsonius*). Northern harrier is a USFWS Bird of Conservation Concern (BCC) and CDFW SSC. The VEGA 6 project area provides foraging habitat but does not provide nesting habitat. One individual was observed during the habitat assessment near the proposed gen-tie line. No CNDDDB records occur within 5 miles of the VEGA 6 project area.
- Peregrine falcon (*Falco peregrinus*). Peregrine falcon is a CDFW Fully Protected species. The VEGA 6 project area provides foraging habitat but does not provide nesting habitat. One individual was observed flying over the creosote bush scrub habitat of the southern end of the solar facility site. No CNDDDB records occur within 5 miles of the VEGA 6 project area.

High Potential to Occur: Four species were found to have high potential to occur on the within the VEGA 6 project area due to the presence of suitable habitat for the species occurring on the site and a known occurrence that has been recorded within 5 miles of the VEGA 6 project area:

- Flat-tailed horned lizard (*Phrynosoma mcallii*). Flat-tailed horned lizard is a CDFW SSC, a BLM sensitive species, and an Imperial County Species of Conservation Focus. The creosote bush scrub habitat within the VEGA 6 project area provides suitable habitat for the flat-tailed horned lizard. Three recent CNDDDB records of six total occur within five miles of the VEGA 6 project area with the closest being approximately 3.5 miles south from 2009. None were observed during the reconnaissance survey, but suitable habitat was confirmed. Harvester ants (*Pogonomyrmex* sp.) were present, which are a food source for flat-tailed horned lizard.
- Black-tailed gnatcatcher (*Poliophtila melanura*). Black-tailed gnatcatcher is a CDFW WL species. The creosote bush scrub, disturbed bush scrub, and disturbed tamarisk thicket habitats within the VEGA 6 project area are suitable for this species. One historic record occurs within five miles of the VEGA 6 project area.

- Burrowing owl (*Athene cunicularia*). Burrowing owl is a USFWS BCC, a CDFW SSC, and Imperial County Species of Conservation Focus. The creosote bush scrub, disturbed creosote bush scrub, disturbed areas, berms of the irrigation canals, and agricultural areas provides potential habitat throughout the VEGA 6 survey area. Ground squirrel burrows that could be utilized by owls were detected within the solar facility site. No owl sign was detected at the burrow entrances. Twenty-five recent CNDDDB records occur within five miles of the VEGA 6 project area with the closest being less than one mile away.
- Palm Springs pocket mouse (*Perognathus longimembris* ssp. *bangsi*). Palm Springs pocket mouse is a CDFW SSC and BLM sensitive species. One recent CNDDDB record occurs approximately 2.75 miles southeast of the VEGA 6 project area. It was found in 2007 where the habitat consisted of creosote bush scrub with very sandy soils. Small rodent burrows were observed within creosote bush scrub habitat onsite during biological surveys. There is suitable habitat and soils within the creosote bush scrub of the solar facility site and buffer.

Moderate Potential to Occur: Four species were found to have moderate potential to occur within the VEGA 6 project area because habitat (including soils and elevation factors) for the species occurs on the VEGA 6 project area and a known occurrence exists within the database search, but not within 5 miles of the VEGA 6 project area; or a known occurrence exists within 5 miles of the VEGA 6 project area and marginal or limited amounts of habitat occurs on the VEGA 6 project area:

- Mountain plover (*Charadrius montanus*). Mountain plover is a USFWS BCC, a CDFW SSC, and a BLM sensitive species. Five recent CNDDDB records occur within five miles of the VEGA 6 project area with one record from 2011 less than 2 miles from the VEGA 6 project area. Agricultural lands along the solar facility site and gen-tie line provide suitable habitat for this species.
- Crissal thrasher (*Toxostoma crissale*). Crissal thrasher is a CDFW SSC and a BLM sensitive species. The tamarisk thickets and creosote bush scrub within the VEGA 6 project area provides suitable habitat for this species. Two historic CNDDDB records occur within five miles of the VEGA 6 project area, one of which overlaps with the proposed gen-tie line.
- Yuma hispid cotton rat (*Sigmodon hispidus eremicus*). Yuma hispid cotton rat is a CDFW SSC. There is potential for this species to occur within vegetated agricultural irrigation channels that run adjacent to the gen-tie line and agriculture fields within the buffer where they can utilize runways through dense herbaceous growth along the channels. Two recent CNDDDB records occur within five miles of the VEGA 6 project area from 2008 with the closest being approximately 2 miles northeast of the VEGA 6 project area. This species was found in a lateral drain canal.
- American badger (*Taxidea taxus*). American badger is a CDFW SSC. One recent CNDDDB record from 2017 occurs within five miles of the VEGA 6 project area on military land. It was noted to be within creosote bush habitat. Moderately suitable habitat exists within the creosote bush scrub habitats of the solar facility site and gen-tie line.

The following eight species were found to have a low potential to occur within the VEGA 6 project area because limited habitat for the species occurs on the site and a known occurrence has been reported in the database or suitable habitat strongly associated with the species occurs on the site, but no records were within 5 miles of site or were not found in the database search.

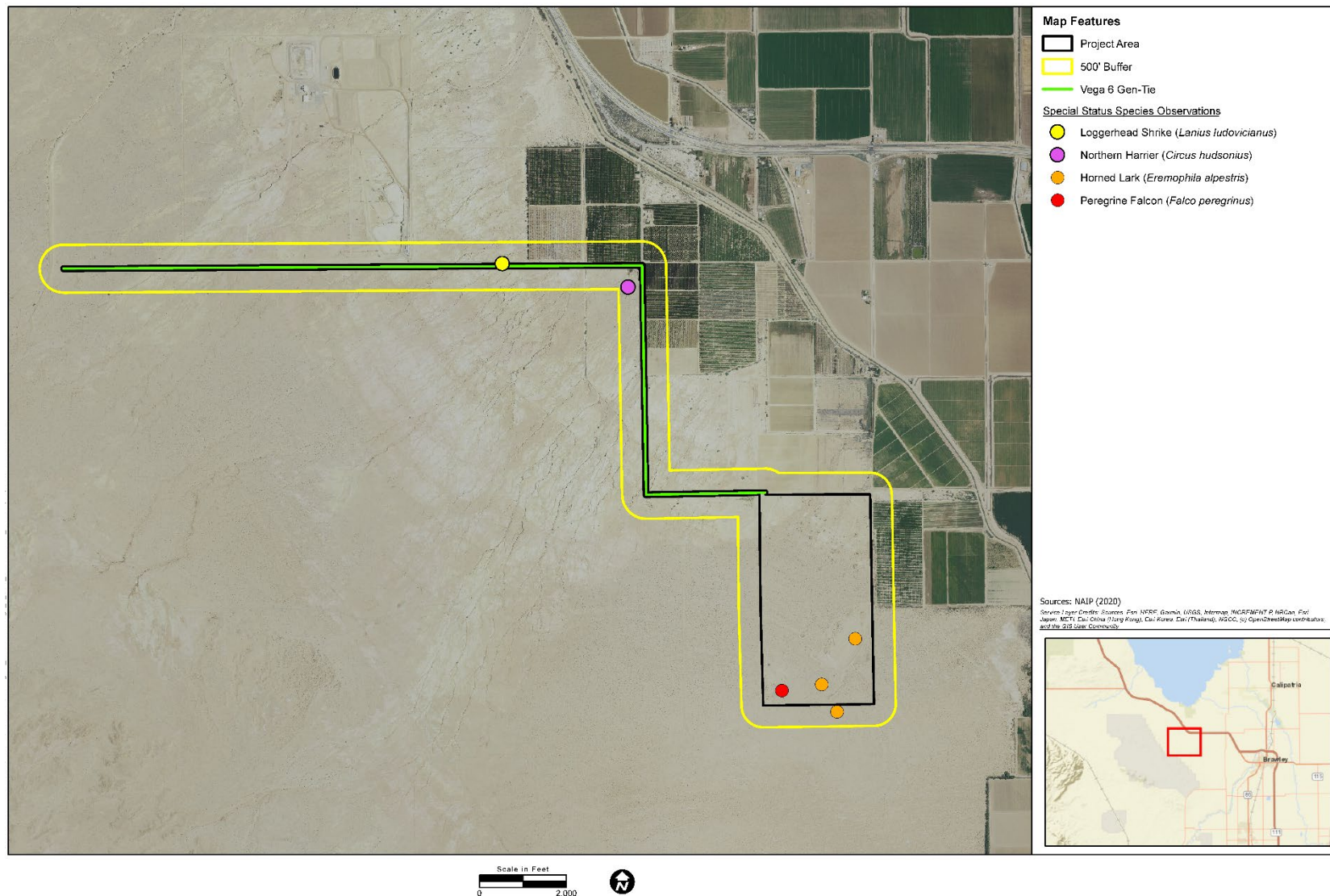
- Colorado Desert fringe-toed lizard (*Uma notata*)

- Gila woodpecker (*Melanerpes uropygialis*)
- California black rail (*Laterallus jamaicensis* ssp. *coturniculus*)
- Yuma Ridgway's rail (*Rallus obsoletus* ssp. *yumanensis*)
- white-faced ibis (*Plegadis chihi*)
- short-eared owl (*Asio flammeus*)
- California leaf-nosed bat (*Macrotus californicus*)
- western yellow bat (*Lasiurus xanthinus*)

The following 10 species are presumed absent from the VEGA 6 project area due to the lack of suitable habitat on the VEGA 6 project area:

- desert pupfish (*Cyprinodon macularius*)
- black skimmer (*Rynchops niger*)
- gray-headed junco (*Junco hyemalis* ssp. *caniceps*)
- brown pelican (*Pelecanus occidentalis*)
- western mastiff bat (*Eumops perotis* ssp. *californicus*)
- pocketed free-tailed bat (*Nyctinomops femorosaccus*)
- big free-tailed bat (*Nyctinomops macrotis*)
- Mexican long-tongued bat (*Choeronycteris mexicana*)
- pallid bat (*Antrozous pallidus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)

Figure 3.4-1. Special-Status Species Observed On-Site



Source: Appendix D1 of this EIR

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Ramon Substation Expansion

LITERATURE REVIEW

A literature review was conducted to determine the existence or potential occurrence of special-status plant and animal species on the Ramon Substation expansion area and in the vicinity. Database records for the *La Quinta, West Berdoo Canyon, Keys View, Myoma, East Deception Canyon, Indio, Seven Palms Valley, Rancho Mirage and Cathedral City, California* USGS 7.5-minute series quadrangles were searched on May 31, 2023 using the CDFW Natural Diversity Data Base *Rarefind 5* online application (version 5, dated April 30, 2023) and the California Native Plant Society's *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023. V9.5, <http://www.cnps.org/inventory>). A USFWS Information for Planning and Conservation (IPaC) Trust Resource Report was generated for the Ramon Substation expansion area on June 5, 2023. Appendix D2 of this EIR includes the CNDDDB, CNPS, and IPaC records search results.

BIOLOGICAL RECONNAISSANCE SURVEY

HDR biologists conducted a site visit on June 16, 2023 in order to identify general site conditions, vegetation communities, and suitability of habitat for various special-status species. The Ramon Substation BSA was surveyed by foot and binoculars were used to aid in the identification of species, potential nest locations, and foraging areas. All wildlife and plant species encountered during the field surveys were identified and recorded. Plant nomenclature follows Jepson Flora Project. The Calflora online database was also used as a tool to assist with plant identification (Appendix D2 of this EIR).

POTENTIAL FOR OCCURRENCE DETERMINATIONS

PLANT SPECIES

Based upon the results of the literature review, 38 special-status plant species are known to occur within the vicinity of the Ramon Substation expansion area (Appendix D2 of this EIR). Of the 38 species, 14 special-status plant species have a potential of occurring within the Ramon Substation BSA. Table 3.4-2 lists these species as well as their habitat requirements and occurrence probability. None of these species were observed within the Ramon Substation BSA during the field survey.

One of these 14 special-status plant species is a federally listed species, the Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*, CNPS 1B.2).

- **Coachella Valley milk-vetch.** Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*) is federally endangered and a CVMSCHP covered species. The species generally occurs in dunes and sandy flats, along the disturbed margins of sandy washes, and in sandy soils along roadsides adjacent to existing sand dunes. The species may also occur in sandy substrates in creosote bush scrub, not directly associated with sand dune habitats. There are core habitat areas within the Thousand Palms Preserve including a small area in the Thousand Palms Canyon and a larger area south of Ramon Road (Appendix D2 of this EIR).

Potentially suitable habitat occurs within the sandy creosote bush scrub vegetation community in the Ramon Substation BSA with critical habitat occurring just north of the BSA. None were observed within the Ramon Substation BSA during the field survey.

The mecca-aster (*Xylorhiza cognata*, CNPS 1B.2) has a low probability of occurring within the Ramon Substation BSA and is covered under the CVMSHCP.

Table 3.4-2. Special-Status Plant Species with Potential to Occur within Ramon Substation BSA

Species	Status	Habitat and Distribution	Blooming Period	Occurrence Probability
<i>Astragalus lentiginosus</i> <i>var. borreganus</i> Borrego milk-vetch	US: None CA: None CNPS: 4.3 CVMSHCP: NC	Mojavean desert scrub, Sonoran desert scrub.	Blooms February through May (annual herb)	Low. Suitable habitat present, nearest CNPS record within Myoma quadrangle.
<i>Astragalus lentiginosus</i> <i>var. coachellae</i> Coachella Valley milk- vetch	US: FE CA: None CNPS: 1B.2 CVMSHCP: C	Occurs in desert dunes and sandy Sonoran desert scrub from 40 to 655 meters (130 to 2,150 feet) above MSL.	Blooms February through May (annual/perennial herb)	Moderate. Suitable habitat present, species known from immediate vicinity, critical habitat to the north of site.
<i>Cuscuta californica</i> <i>var.</i> <i>apiculata</i> Pointed dodder	US: None CA: None CNPS: 3 CVMSHCP: NC	Occurs in Mojavean desert scrub and Sonoran desert scrub from 0 to 500 meters (0 to 1,640 feet) above MSL.	Blooms February through August (annual vine (parasitic))	Low. Suitable habitat present, nearest CNPS record within Cathedral City quadrangle.
<i>Ditaxis claryana</i> Glandular ditaxis	US: None CA: None CNPS: 2B.2 CVMSHCP: NC	Occurs in sandy soils in Mojavean desert scrub and Sonoran desert scrub from 0 to 465 meters (0 to 1,525 feet) above MSL.	Blooms October through March (perennial herb)	Low. Suitable habitat present, nearest CNDDB records approx. 7 miles south of site.
<i>Ditaxis serrate</i> <i>var.</i> <i>californica</i> California ditaxis	US: None CA: None CNPS: 3.2 CVMSHCP: NC	Occurs in Sonoran desert scrub from 30 to 1,000 meters (100 to 3,280 feet) above MSL.	Blooms March through December (perennial herb)	Low. Suitable habitat present, nearest CNDDB records approx. 8 miles south of site.
<i>Euphorbia abramsiana</i> Abrams' spurge	US: None CA: None CNPS: 2B.2 CVMSHCP: NC	Occurs in Mojavean desert scrub and Sonoran desert scrub from -5 to 1,310 meters (-15 to 4,300 feet) above MSL.	Blooms August through November (annual herb)	Low. Suitable habitat present, nearest CNDDB records approx. 4.5 miles south of site.
<i>Euphorbia arizonica</i> Arizona spurge	US: None CA: None CNPS: 2B.3 CVMSHCP: NC	Occurs in sandy Sonoran desert scrub from 50 to 300 meters (165 to 985 feet) above MSL.	Blooms March through April (perennial herb)	Low. Suitable habitat present, nearest CNDDB records approx. 3 miles north of site.
<i>Euphorbia platysperma</i> flat-seeded spurge	US: None CA: None CNPS: 1B.2 CVMSHCP: NC	Occurs in desert dunes and sandy Sonoran desert scrub from 65 to 100 meters (215 to 330 feet) above MSL.	Blooms February through September (annual herb)	Moderate. Suitable habitat present, nearest CNDDB records less than 1 mile southwest of site.
<i>Johnstonella costata</i> Ribbed cryptantha	US: None CA: None CNPS: 4.3 CVMSHCP: NC	Occurs in desert dunes, Mojavean desert scrub, Sonoran desert scrub from -60 to 500 meters (- 195 to 1,640 feet) above MSL.	Blooms February through May (annual herb)	Moderate. Suitable habitat present, site within CNPS Myoma quadrangle.



<i>Johnstonella holoptera</i> Winged cryptantha	US: None CA: None CNPS: 4.3 CVMSHCP: NC	Occurs in Mojavean desert scrub, Sonoran desert scrub from 100 to 1,690 meters (330 to 5,545 feet) above MSL.	Blooms March through April (annual herb)	Moderate. Suitable habitat present, site within CNPS Myoma quadrangle.
<i>Lycium torreyi</i> Torrey's box-thorn	US: None CA: None CNPS: 4.2 CVMSHCP: NC	Occurs in Mojavean desert scrub, Sonoran desert scrub from -50 to 1,220 meters (-165 to 4,005 feet) above MSL.	Blooms January through November (perennial shrub)	Moderate. Suitable habitat present, site within CNPS Myoma quadrangle.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender cottonheads	US: None CA: None CNPS: 2B.2 CVMSHCP: NC	Occurs in coastal dunes, desert dunes, and Sonoran desert scrub from -50 to 400 meters (-165 to 1,310 feet) above MSL.	Blooms March through May (annual herb)	Low. Suitable habitat present, nearest CNDDDB records approx. 6 miles southwest of site.
<i>Petalonyx linearis</i> Narrow-leaf sandpaper-plant	US: None CA: None CNPS: 2B.3 CVMSHCP: NC	Occurs in Mojavean desert scrub, Sonoran desert scrub from -25 to 1,115 meters (-80 to 3,660 feet) above MSL.	Blooms January through December (perennial shrub)	Low. Suitable habitat present, nearest CNDDDB records approx. 3 miles northeast of site.
<i>Xylorhiza cognata</i> Mecca-aster	US: None CA: None CNPS: 1B.2 CVMSHCP: C	Occurs in Sonoran desert scrub habitat from 20 to 400 meters (65 to 1,310 feet) above MSL.	Blooms January through June (perennial herb)	Low. Suitable habitat present, nearest CNDDDB records approx. 6.5 miles east of site.
Notes:				
US: Federal Classifications				
<i>FE</i>	<i>Taxa listed as Endangered</i>			
<i>FT</i>	<i>Taxa listed as Threatened</i>			
CA: State Classification				
<i>SE</i>	<i>Taxa State-listed as Endangered</i>			
<i>ST</i>	<i>Taxa State-listed as Threatened</i>			
CNPS Rare Plant Rank*				
<i>List 1B.2</i>	<i>List 1b: Rare, threatened, or endangered in California and elsewhere. 0.2: Fairly endangered in California</i>			
<i>List 2.3</i>	<i>List 2: Rare, threatened, or endangered in California, but more common elsewhere. 0.3: Not very endangered in California.</i>			
<i>List 4.2</i>	<i>Limited distribution (Watch list). 0.2: Fairly endangered in California.</i>			
<i>List 4.3</i>	<i>Limited distribution (Watch list). 0.3: Not very endangered in California.</i>			
<i>List A</i>	<i>Plants rare, threatened or endangered in California and elsewhere.</i>			
<i>List B</i>	<i>Plants rare, threatened or endangered in California but more common elsewhere.</i>			
<i>*California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts and are not official State designations of rarity status.</i>				
CVMSHCP Conservation Status				
<i>NC</i>	<i>Impacts to this species are not covered through participation in the CVMSHCP.</i>			
<i>C</i>	<i>Impacts to this species are covered through participation in the CVMSHCP.</i>			

Source: Appendix D2 of this EIR

WILDLIFE SPECIES

Based upon the results of the literature review, 29 special-status wildlife species are known to occur within the vicinity of the Ramon Substation expansion area. Of the 29 species, nine special-status wildlife species have a potential of occurring within the Ramon Substation BSA. Table 3.4-3 lists these species as well as their habitat requirements and occurrence probability.

One of these species is listed as endangered, threatened or is a candidate for listing under the federal and/or California Endangered Species Acts:

- Coachella Valley fringe-toed lizard (*Uma inornate*). The Coachella Valley fringe-toed lizard is federally threatened, state endangered and a CVMSHCP covered species. The species is restricted to the Coachella Valley and historically ranged from Cabazon, east to Thermal. The lizard is associated with aeolian sands and has developed morphological and behavioral adaptations including a unique way of “swimming” through the loose sand. As a result, the lizard is dependent on less compacted sands for burrowing to escape the heat of the day, sometimes deeper than five centimeters and in the shade on the hottest days. During normal and wet years, the species feeds on flowers and plant dwelling arthropods, switching to leaves and ants during the dry years (Appendix D2 of this EIR).

The Ramon Substation BSA is located within designated critical habitat for the species and adjacent to the Thousand Palms Conservation Area of the CVMSCHP. The majority of the Ramon Substation BSA contains creosote bush scrub habitat with looser sands, however, proper aeolian sands that the species is closely associated with is absent from the Ramon Substation BSA.

Table 3.4-3. Special-Status Wildlife Species with Potential to Occur within Ramon Substation BSA

Species	Federal/State Status	Habitat and Distribution	Potential for Occurrence
INSECTS			
<i>Bombus crotchii</i> Crotch bumble bee	US: None CA: CE CVMSHCP: NC	Found between San Diego and Redding in a variety of habitats including open grasslands, shrublands, chaparral, desert margins including Joshua tree and creosote scrub, and semi-urban settings. It is near endemic to California, with only a few records from Nevada and Mexico (CDFW 2022). Williams et al. (2014) report plants in the genera <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> as example food plants.	Potentially suitable creosote scrub habitat onsite, however, nearest CNDDDB occurrence is over 9.5 miles west of the site.
REPTILES			
<i>Phrynosoma mcallii</i> Flat-tailed horned lizard	US: None CA: SSC CVMSHCP: C	Sandy desert hardpan or gravel flats with scattered sparse vegetation of low species diversity. Common in areas with high density of harvester ants and fine windblown sand, but rarely occurs on dunes.	Suitable habitat onsite, nearest CNDDDB occurrence is less than 1 mile northeast of the site.



Species	Federal/State Status	Habitat and Distribution	Potential for Occurrence
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	US: FT CA: SE CVMSHCP: C	Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, washes, and flats with sandy hummocks formed around the bases of vegetation. Needs fine, loose sand for burrowing.	Suitable habitat onsite, nearest CNDDDB occurrence is less than .5 miles west and east of the site. Within critical habitat.
BIRDS			
<i>Athene cunicularia</i> Burrowing Owl	US: None CA: SSC CVMSHCP: C	Open country in much of North and South America. Usually occupies ground squirrel burrows in open, dry grasslands, agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Often utilizes man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles. They avoid thick, tall vegetation, brush, and trees.	Low: The site does not contain suitable natural habitat to support this species, but debris piles are present within the site.
<i>Lanius ludovicianus</i> Loggerhead shrike	US: None CA: SSC CVMSHCP: NC	Inhabits open country with short vegetation and well-spaced shrubs or low trees, particular those with spines or thorns. Frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries.	Moderate: Site contains suitable habitat to support this species. Nearest CNNDDB occurrence is 4 miles southeast of site.
<i>Pyrocephalus rubinus</i> Vermilion flycatcher	US: None CA: SSC CVMSHCP: NC	Scrub, desert, cultivated lands, and riparian woodlands.	Moderate: Site contains suitable habitat to support this species. Nearest CNNDDB occurrence is 7 miles southeast of site.
MAMMALS			
<i>Perognathus longimembris bangsi</i> Palm Springs pocket mouse	US: None CA: SSC CVMSHCP: C	Creosote scrub, desert scrub, and grasslands, generally occurring on loosely packed or sandy soils with sparse to moderately dense vegetative cover.	Low: The site contains suitable habitat to support this species but is disturbed. Nearest CNDDDB occurrence is 5 miles southeast of site.
<i>Taxidea taxus</i> American badger	US: None CA: SSC CVMSHCP: NC	Agricultural land, grassland and other open areas and brush lands with sparse groundcover.	Low: The site contains suitable habitat to support this species, however, nearest CNDDDB occurrence is 10 miles southeast of site.

Species	Federal/State Status	Habitat and Distribution	Potential for Occurrence
<i>Xerospermophilus tereticaudus chlorus</i> Coachella Valley round-tailed ground squirrel	US: None CA: SSC CVMSHCP: C	Sandy arid areas with scrub and wash habitats including mesquite- and creosote-dominated sand dunes, creosote bush scrub, creosote-palo verde, and saltbush/alkali scrub. Wind-blown sand, coarse sand, and packed silt with desert pavement.	Low: The site contains suitable habitat to support this species but is disturbed. Nearest CNDDDB occurrence is 5 miles southeast of site.
<p>Notes:</p> <p>FE <i>Federally Endangered</i> FT <i>Federally Threatened</i> FC <i>Federal Candidate for Listing</i> SE <i>Endangered in California</i> ST <i>Threatened in California</i> CE <i>Candidate for Endangered Status</i> CT <i>Candidate for Threatened Status</i> CR <i>Rare in California</i> SSP <i>State Species of Concern</i> FP <i>State Fully Protected</i></p>			
CVMSHCP Conservation Status			
NC	<i>Impacts to this species are not covered through participation in the CVMSHCP.</i>		
C	<i>Impacts to this species are covered through participation in the CVMSHCP.</i>		

Source: Appendix D2 of this EIR

Aquatic Resources

VEGA 6

Aquatic resources have been mapped within the VEGA 6 project area. Each resource is summarized by features in Table 3 and Figure 5 of the *Aquatic Resources Delineation – VEGA SES 6 Solar Project* (Appendix E1 of this EIR). Features identified as an aquatic resource had physical evidence of flow, including at least two OHWM field indicators: defined bed and bank, scour, presence of a clear and natural line impressed on the bank, presence of leaf litter and/or debris, sediment sorting, shelving, destruction of terrestrial vegetation, and/or vegetation matted down, bent, or missing indicating active hydrology within the channel.

EPHEMERAL DRAINAGE

Ephemeral drainages are linear features that exhibit a bed and bank and an OHWM. These features typically convey runoff for short periods of time, during and immediately following rain events, and are not influenced by groundwater sources at any time during the year. The VEGA 6 project area and adjacent upslope areas are within an alluvial fan drainage system that produces ephemeral conditions with surface waters flowing in direct response to large rain events for short durations. A number of these ephemeral drainages were determined to be inactive, as they do not actively transport water during rain events and are, therefore, assumed to be relic features on the landscape.

At the time of the field assessment, all ephemeral features contained no surface flow. The OHWM was delineated in the field primarily by the changes in vegetation, sediment changes, and the break in bank slope. Other features observed included mud cracks and surface relief caused by flowing water. Channel surface features within ephemeral drainages indicated weak bed and bank along with a

narrow-scoured area that varied in width. Sampling points were not taken within the ephemeral features, as the presence of a wetland was not expected.

DETENTION BASIN

Detention basins are man-made surface storage basins in upland areas that provide flow control of stormwater runoff. They are typically dry most of the year and can also be used for recreational or agricultural purposes.

There are two detention basins located within the VEGA 6 aquatic resources study area. Detention Basin 201, which is located in the northwest corner of the solar facility site, has soil cracks and rows of young tamarisk trees but lacks hydric soils. Detention Basin 301, which is located in the southern section of the solar facility site, appears to be abandoned with remnant disturbed tamarisk thickets and no signs of hydrology.

CONSTRUCTED CHANNEL

Constructed channels (CC) are manufactured features constructed for the purpose of channeling stormwater and ephemeral features to a desired location. Within the VEGA 6 aquatic resources study area, these include ephemeral ditches that retain water within their berms, as well as ephemeral drainage systems that convey water through culverts to natural drainage features that eventually drain into the Salton Sea. Three CC features appear to be created to catch stormwater runoff and man-made berms are present where the features are intersected by roads and canals, so the water remains within the features.

POTENTIAL CDFW REGULATED HABITATS

Riparian habitat is present primarily within the eastern and southern portions of the VEGA 6 aquatic resources study area. There is riparian habitat associated with the detention basins within the solar facility site. Additional riparian habitat is associated with the agricultural drains and roadside ditches. Riparian habitat associated with Detention Basins 201 and 301 appear in historic aerials dating as early as 1992, which appear to have been part of agriculture systems. Both detention basins no longer appear to be in use, though the riparian habitat associated with the relic basins has persisted.

Ramon Substation Expansion

No aquatic resources were observed within the Ramon Substation aquatic resources study area during the field visit.

Jurisdictional Assessment

Aquatic resources that are potentially regulated under the CWA, the Porter-Cologne Act, and California Fish and Game Code Section 1602 are summarized below. These results are subject to modification following agency verification.

VEGA 6

CLEAN WATER ACT

The ephemeral drainages within the VEGA 6 project area are tributary to the Salton Sea, which is a TNW. Under the current definition of waters of the U.S., the *Rapanos* guidance, the ephemeral drainages onsite would be considered non-navigable tributaries that are not relatively permanent. In

which, case, a significant nexus evaluation of the ephemeral drainages would be necessary to determine jurisdiction if seeking an Approved Jurisdictional Determination (AJD).

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The following categories meet the definition of waters of the state and are regulated pursuant to the Porter-Cologne Act. The Porter-Cologne Act defines waters of the state as “any surface water or groundwater, including saline waters, within the boundaries of the state” [Water Code 13050 (e)]. The Porter-Cologne Act defines “Waters of the State” very broadly, with no physical descriptors, and no interstate commerce limitation. The categories are:

- Ephemeral Drainages
- Detention Basins
- Constructed Channels

The remaining features are excluded from the definition of waters of the state pursuant to current guidance from the SWRCB and include the inactive ephemeral drainages. Impacts to features that fall under the definition of waters of the state would trigger the need for permits through the WDR process.

CALIFORNIA FISH AND GAME CODE SECTION 1600-1602

The following categories meet the criteria for resources that are regulated under Section 1600 of the California Fish and Game Code. This includes all resources with surface or subsurface flow, and a body of water that “flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life.” Areas with associated riparian vegetation that is supported by the surface and subsurface flow through these streambeds that are also added to CDFW’s jurisdiction under Section 1600. The categories are:

- Ephemeral Drainages
- Detention Basins
- Constructed Channels
- Associated Riparian Habitat

The remaining features are excluded from Sections 1600-1602 pursuant to current guidance from CDFW and include the inactive ephemeral drainages, because they do not meet the definition of a bed, channel, or bank of any river, stream, or lake and associated riparian habitat. Impacts to features that fall under the definition of streambed and associated riparian habitat would trigger the need for Streambed Alteration Notification and the project may need to enter into formal Agreements with CDFW. Additional areas mapped as riparian habitat, such as those located within the solar facility site, are not associated with any streams with flow but have likely established opportunistically in areas that were recently left fallow, previously irrigated and farmed, and are in artificially moist areas where surface and subsurface flow are unlikely.

Ramon Substation Expansion

CLEAN WATER ACT

No aquatic resources were observed within the Ramon Substation aquatic resources study area during the field visit. The area is entirely upland dominated by creosote bush scrub with no features exhibiting

any hydrologic indicators or containing hydrophytic plants. No soil samples were taken during the field visit.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

No aquatic resources were observed within the Ramon Substation aquatic resources study area during the field visit. The area is entirely upland dominated by creosote bush scrub with no features exhibiting any hydrologic indicators or containing hydrophytic plants.

CALIFORNIA FISH AND GAME CODE SECTION 1600-1602

Features within the Ramon Substation aquatic resources study area were assessed for CDFW jurisdiction based on whether they exhibited a stream bed and bank, provided habitat value for terrestrial and/or aquatic wildlife, and/or associated with a naturally occurring drainage feature. No aquatic resources were observed within the Ramon Substation aquatic resources study area during the field.

Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

VEGA 6

The VEGA 6 project area was assessed for its ability to function as a wildlife corridor. The solar facility site and western portion of the gen-tie line currently provide wildlife movement opportunities because they consist of open and relatively unimpeded land. However, it would not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat areas due to the lack of conserved natural lands in the vicinity and the VEGA project area's proximity to agricultural areas. The VEGA 6 project area is also mostly surrounded by additional open unimpeded land, functioning as a single contiguous block of habitat rather than a corridor. The solar facility site is exposed and does not contain any major features that would be considered critical movement corridors for wildlife.

Although the dirt roads and desert washes located within the VEGA 6 project boundary are likely utilized by wildlife moving through the area, these features would not be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby open space surrounding the VEGA 6 project area. Existing development in the vicinity of the VEGA 6 project area and presence of anthropogenic uses throughout the area (e.g., trash dumping,

OHV use) further limit ability for wildlife to use the VEGA 6 project area for travel and regional movement.

Ramon Substation Expansion

The Ramon Substation expansion area is disturbed and contains very little native vegetation, additionally, the expansion area is bordered by the existing SCE Mirage substation to the west, the existing Ramon Substation and Ramon Road to the south, which limits wildlife movement through the expansion area.

Habitat Conservation Plans

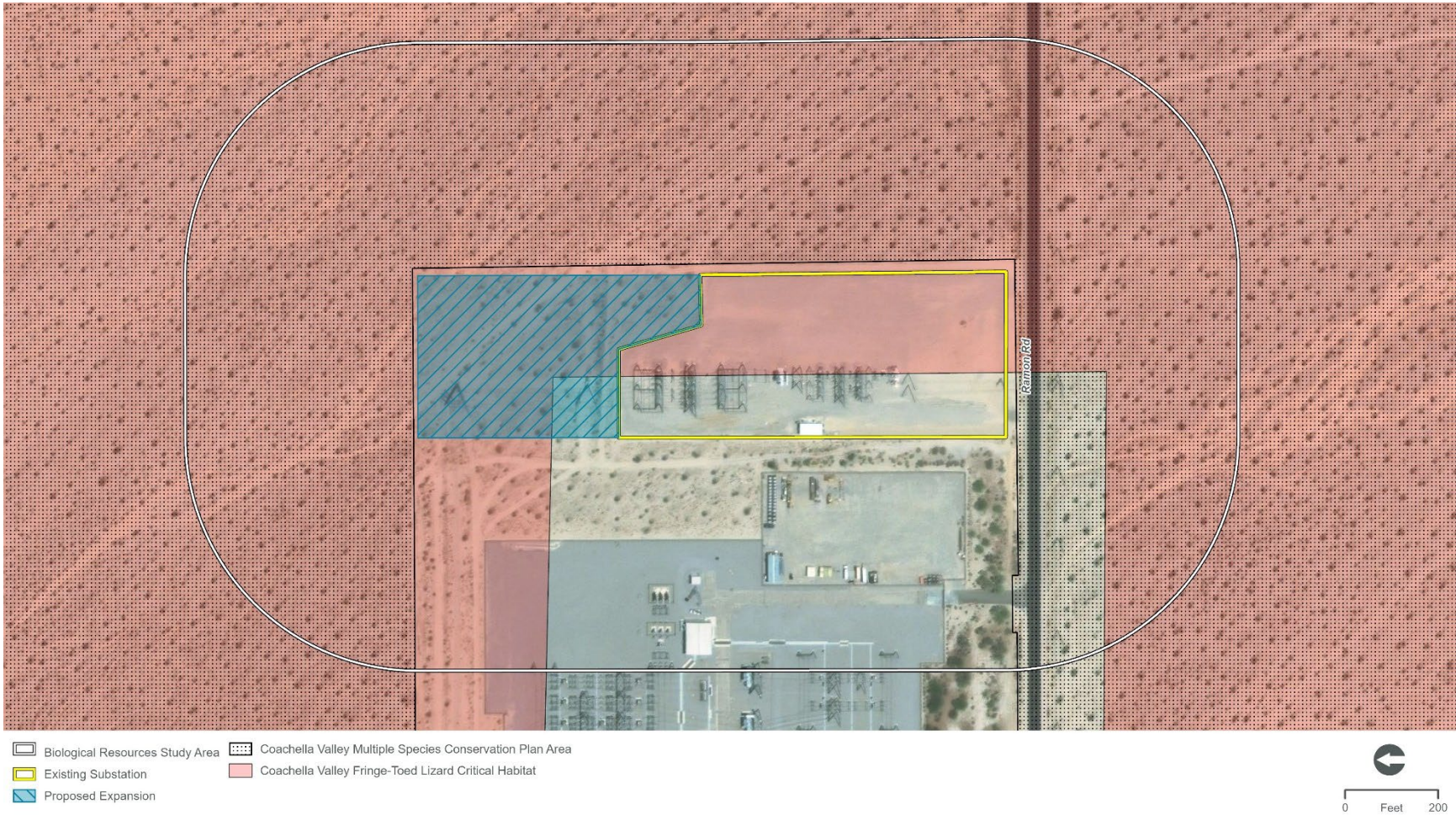
VEGA 6

The VEGA 6 project area is within the designated boundaries of the Desert Renewable Energy Natural Community Conservation Plan & Habitat Conservation Plan (NCCP/HCP). The VEGA 6 project area is adjacent to an Area of Critical Environmental Concern and BLM land.

Ramon Substation Expansion

The Ramon Substation expansion area is located within the boundaries of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) (Figure 3.4-2), adjacent to the Thousand Palms Conservation Area. The CVMSHCP covers approximately 240,000 acres of land in Coachella Valley with the purpose to balance growth while conserving sensitive habitats and species.

Figure 3.4-2. Coachella Valley Multiple Species Conservation Plan Area



Source: Appendix E2 of this EIR

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3.4.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Bald and Golden Eagle Protection Act of 1940

The Bald Eagle Protection Act of 1940 protects bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. ‘Take’ is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” ‘Disturb’ is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (72 Federal Register [FR] 31132; 50 CFR 22.3). All activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this Act.

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) protects federally listed threatened and endangered species and their habitats from unlawful take and ensures that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Under the ESA, “take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The U.S. Fish and Wildlife Service (USFWS) regulations define harm to mean “an act which actually kills or injures wildlife” (50 CFR 17.3).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the U.S. and Great Britain, the U.S. and Mexico, the U.S. and Japan, and the U.S. and Russia. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

Section 404 Permit (Clean Water Act)

The purpose of the Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredge and fill material into waters of the U.S., including wetlands, without a permit from the U.S. Army Corps

of Engineers (USACE). Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual 404b permit or authorization to use an existing USACE Nationwide Permit will need to be obtained if any portion of the construction requires fill into a river, stream, or stream bed that has been determined to be a jurisdictional waterway.

State

California Endangered Species Act

Provisions of CESA protect state-listed threatened and endangered species. The California Department of Fish and Wildlife (CDFW) regulates activities that may result in “take” of individuals (“take” means “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the California Fish and Game Code (FGC). Additionally, California FGC contains lists of vertebrate species designated as “fully protected” (California FGC Sections 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], 5515 [fish]). Such species may not be taken or possessed.

In addition to state-listed species, CDFW has also produced a list of Species of Special Concern to serve as a “watch list.” Species on this list are of limited distribution or the extent of their habitats has been reduced substantially such that threats to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

Birds of prey are protected in California under California FGC. Section 3503.5 states it is “unlawful to take, possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment.

California Fish and Game Code Section 1600 et. seq (as amended)

The California FGC Section 1600 et. seq. requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

California Fish and Game Code Sections 3503, 3503.5 and 3513

Under Sections 3503, 3503.5, and 3513 of the California FGC, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated by the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to FGC Section 3800 are prohibited. Additionally, the state further protects certain species of fish, mammals, amphibians and reptiles, birds, and mammals through CDFW’s Fully Protected Animals which prohibits any take or possession of classified species.

California Fish and Game Code Sections 1900-1913 (Native Plant Protection Act)

California's Native Plant Protection Act prohibits the taking, possessing, or sale within the state of any plant listed by CDFW as rare, threatened, or endangered. This allows CDFW to salvage listed plant species that would otherwise be destroyed.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, all projects proposing to discharge waste that could affect waters of the State must file a waste discharge report with the appropriate regional board. The project falls under the jurisdiction of the Colorado River RWQCB.

California Environmental Quality Act

Title 14 CCR, Section 15380 requires the identification of endangered, rare, or threatened species or subspecies of animals or plants that may be impacted by a project. If any such species are found, appropriate measures should be identified to avoid, minimize, or mitigate the potential effects of projects.

Desert Renewable Energy Conservation Plan Land Use Plan Amendment

The Desert Renewable Energy Conservation Plan (DRECP) is designed to provide effective protection and conservation of desert ecosystems while allowing for the appropriate development of renewable energy projects. The DRECP Area contains both federal and non-federal California desert land. Some of these lands are designated as California Desert Conservation Areas. The federal portion of the plan area was released by the BLM as a Land Use Plan Amendment. The DRECP Land Use Plan Amendment supports the conservation goals of the DRECP and organizes land into ecoregions and subregions with specific management goals, objectives, allowable uses, and management actions for biological and cultural resources. The BLM designates Areas of Critical Environmental Concern where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. The BLM also designates Renewable Energy Development Focus Areas which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. The intent is to incentivize and streamline such development in these areas (Appendix D of this EIR).

Local

Imperial County General Plan

The Conservation and Open Space Element of the Imperial County General Plan provides detailed plans and measures for the preservation and management of biological and cultural resources, soils, minerals, energy, regional aesthetics, air quality, and open space. The purpose of this element is to recognize that natural resources must be maintained for their ecological value for the direct benefit to the public and to protect open space for the preservation of natural resources, the managed production of resources, outdoor recreation, and for public health and safety. In addition, the purpose of this element is to promote the protection, maintenance, and use of the County's natural resources with particular emphasis on scarce resources, and to prevent wasteful exploitation, destruction, and neglect of the state's natural resources. Table 3.4-4 analyzes the consistency of the project with specific policies contained in the Imperial County General Plan associated with biological resources.

Table 3.4-4. VEGA 6 Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element		
<p>Policy No. 2 - The County shall participate in conducting detailed investigations into the significance, location, extent, and condition of natural resources in the County.</p> <p>Program: Notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat.</p>	Consistent	<p>A biological assessment has been conducted at the VEGA 6 project site to evaluate the proposed project's potential impacts on biological resources. Implementation of the proposed VEGA 6 project has the potential to impact special-status wildlife species. Implementation of Mitigation Measures BIO-1 through BIO-7 would reduce impacts to a level less than significant.</p> <p>Applicable agencies responsible for protecting plants and wildlife will be notified of the proposed VEGA 6 project and provided an opportunity to comment on this EIR prior to the County's consideration of any approvals for the project. As described in Chapter 2, Project Description, implementation of the project would require the approval of a CUP, General Plan Amendment, and Zone Change by the County to allow for the construction and operation of the project.</p>
<p>Goal 1 - Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.</p> <p>Objective 1.6 - Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.</p>	Consistent	<p>A biological assessment has been conducted at the VEGA 6 project site to evaluate the project's potential impacts on biological resources. Implementation of the proposed project has the potential to impact special-status wildlife species. However, with implementation of mitigation (Mitigation Measures BIO-1 through BIO-7), the VEGA 6 project would not result in residual significant or unmitigable impacts on biological resources.</p>

Source: County of Imperial 2016

Riverside County General Plan

The Multipurpose Open Space Element of the Riverside County General Plan contain policies to preserve natural resources that are sensitive, rare, threatened, endangered and irreplaceable. To address the issues of wildlife health and sustainability, the County of Riverside has participated in or directed the development of two Multiple Species Habitat Conservation Plans (MSHCP's) – the Western Riverside County MSHCP and the Coachella Valley MSHCP. The Western Riverside County MSHCP has been adopted by the County of Riverside and approved by other jurisdictions and the Wildlife Agencies. The Coachella Valley Association of Governments' MSHCP has also been adopted

and received its final permit from the U.S. Fish and Wildlife Service on October 1, 2008 (County of Riverside 2015).

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) received its California state permit in September 2008 and its federal permit in October 2008. The CVMSHCP is a comprehensive habitat conservation-planning program focusing on preservation of species and their associated habitats within the Coachella Valley region of Riverside County. Signatories to the CVMSHCP include the cities of Cathedral City, Coachella, Desert Hot Springs (I-10 annexation area only), Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage as well as Coachella Valley Water District, Imperial Irrigation District, Coachella Valley Association of Governments, and Caltrans. The intent of the CVMSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the CVMSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the CVMSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach.

The CVMSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species. Through agreements with the USFWS and the CDFW, the CVMSHCP designates approximately 27 special-status animal and plant species that receive some level of coverage under the plan. Of the 27 covered species designated under the CVMSHCP, the majority of these species have no additional survey/conservation requirements. In addition, the CVMSHCP provides mitigation for project-specific impacts to these species so that the impacts would be reduced to below a level of significance pursuant to CEQA. Beyond the fully covered species, there are species with additional survey/conservation requirements.

Each participating city or local jurisdiction within the Coachella Valley region will impose a development mitigation fee for new development projects within its jurisdiction. As of July 1, 2023, the current fees for development are:

- \$1,625 for 0 to 8 residential units per acre
- \$675 for 8.1 to 14 residential units per acre
- \$300 for more than 14 residential units per acre
- \$7,225 per acre for commercial/industrial

3.4.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to biological resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to biological resources are considered significant if any of the following occur:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS
- Have a substantial adverse effect on state or federally-protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Methodology

VEGA 6

This analysis evaluates the potential for the VEGA 6 project, as described in Chapter 2, Project Description to result in significant impacts related biological resources on or in the vicinity of the project site. A biological resources technical report and aquatic resources report were prepared for the VEGA 6 project. The information obtained from the sources was reviewed and summarized to present the existing conditions and to identify potential environmental impacts, based on the significance criteria presented in this section. Impacts associated with biological resources that could result from project construction and operational activities were evaluated qualitatively based on-site conditions; expected construction practices; and materials, locations, and duration of project construction and related activities.

Ramon Substation Expansion

This analysis evaluates the potential for the Ramon Substation expansion, as described in Chapter 2, Project Description to result in significant impacts related biological resources on or in the vicinity of the expansion area. A biological resources technical report and aquatic resources report were prepared for the proposed Ramon Substation expansion. The information obtained from the sources was reviewed and summarized to present the existing conditions and to identify potential environmental impacts, based on the significance criteria presented in this section. Impacts associated with biological resources that could result from project construction and operational activities were evaluated qualitatively based on-site conditions; expected construction practices; and materials, locations, and duration of project construction and related activities.

Impact Analysis

Impact 3.4-1 *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?*

VEGA 6

SPECIAL-STATUS PLANTS

Eleven special-status plant species have the potential occur in the VEGA 6 project vicinity. However, due to lack of suitable habitat and soils as well as the site's current condition of being heavily disturbed and developed, all special-status plant species were determined to have low potential of occurrence. None of these species are federally or state listed. If these special-status plant species were to be present on the site, they would likely occur in low numbers due to the limiting factors listed above (anthropogenic and mechanical disturbances, urban development, and lack of connectivity) and project-related impacts would not contribute to the overall decline of populations for these species and therefore not considered significant.

SPECIAL-STATUS WILDLIFE

Four special-status wildlife species were found to be present within the VEGA 6 project area and adjacent habitat: California horned lark, loggerhead shrike, northern harrier, and peregrine falcon. These species were observed within a variety of habitats within the VEGA 6 BSA. Foraging habitat for a number of raptor species and breeding habitat for numerous passerine species that are protected by the MBTA occurs throughout the VEGA 6 project area. The VEGA 6 project area provides nesting habitat for ground-nesting species as well as species that nest in various scrub habitats. Direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Indirect impacts include loss of foraging and nesting habitat for passerine and raptor species, increase in noise and human activities, and potential introduction of invasive or nonnative species. These potential impacts are considered significant. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce impacts to a level less than significant.

Four special-status wildlife species were found to have a high potential to occur within the VEGA 6 project area and adjacent habitats: flat-tailed horned lizard, black-tailed gnatcatcher, burrowing owl, and Palm Springs pocket mouse. The creosote bush scrub in the VEGA 6 project area and buffer provides habitat for flat-tailed horned lizard. Direct impacts to these species could occur in the form of injury and mortality. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground vibrations, noise, and increased dust. Implementation of Mitigation Measures BIO-3 and BIO-4 would reduce impacts to a level less than significant. The various scrub habitats and tamarisk thickets provides foraging and nesting habitat for black-tailed gnatcatcher. Direct impacts to these species could occur in the form of injury, mortality, and the loss of nests or young. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground vibrations, noise, and increased dust. These potential impacts are considered significant. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce impacts to a level less than significant.

Burrowing owl has a high potential to occur on the VEGA 6 project area and buffer due to the number of previously documented occurrences and suitable habitat on the VEGA 6 project area. Suitable burrowing owl burrows and burrow structures were identified during the survey. Although no burrowing

owl were observed or burrows with sign identified at the time of the survey, due to the mobile nature of the species it is possible that burrowing owl could use the site prior to the start of project activities. If burrowing owl are found to be using or nesting on the site prior to the start of construction due to a change in potential burrow presence, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Potential project-related direct impacts to these species could be significant and occur in the form of injury, mortality, and loss of active nests or young. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground disturbances, noise, and increased dust. Implementation of Mitigation Measure BIO-5 would reduce impacts to a level less than significant.

Palm Springs pocket mouse has a high potential to occur in the creosote bush scrub habitat of the VEGA 6 project area. Therefore, there is potential for project-related impacts to be significant if this species occurs in the VEGA 6 project area in the form of direct mortality and destruction of habitat. Implementation of Mitigation Measure BIO-6 would reduce impacts to a level less than significant.

Four special-status wildlife species were found to have a moderate potential to occur within the VEGA 6 project area: mountain plover, Crissal thrasher, Yuma hispid cotton rat, and American badger. Direct impacts to these species could occur in the form of injury, mortality, and the loss of nests or young. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground vibrations, noise, and increased dust. These potential impacts are considered significant. Implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, and BIO-7 would reduce impacts to a level less than significant.

Ramon Substation Expansion

SPECIAL-STATUS PLANTS

One federally and/or state listed plant species would have a moderate probability of occurring within the Ramon Substation BSA. The Coachella Valley milk-vetch is known to occur within sandy substrates in creosote bush scrub habitat which occurs within the proposed Ramon Substation expansion area. Potential impacts that may occur during construction of the proposed Ramon Substation expansion include loss of individuals, habitat, and seedbank. Depending on the size of the population, impacts on special-status plant species within the project impact area may be considered significant. The Coachella Valley milk-vetch is a CVMSCHP covered species and direct impacts to this species is considered a covered activity and mitigated through participation in the CVMSCHP. In addition, Mitigation Measure RS-BIO-1 would be implemented and would require payment of the mitigation fee as required by the CVMSCHP. Implementation of Mitigation Measure RS-BIO-1 would reduce impacts to a level less than significant.

As shown in Table 3.4-2, 13 non-listed special-status plant species have the potential to occur in the Ramon Substation BSA. None of these species were observed during the field visit. Implementation of the proposed Ramon Substation expansion would impact disturbed creosote bush scrub and creosote bush scrub vegetation communities that may be suitable habitat for these non-listed special-status plant species. These potential impacts are considered significant. Mitigation Measure RS-BIO-2 would implement biological resource protection measures prior to construction including a worker's environmental training and review of approved work areas with appropriate fencing. Mitigation Measure RS-BIO-3 would require preconstruction surveys for the presence of any of these special-status plant species and would work to avoid impacts. In this context, impacts to non-listed special-status plant species would be reduced to less than significant with implementation of Mitigation Measures RS-BIO-2 and RS-BIO-3.

SPECIAL-STATUS WILDLIFE

One federally and/or state listed wildlife species would have a potential of occurring within the BSA. The Coachella Valley fringe-toed lizard has the potential of occurring within the sandy substrates of the creosote bush scrub located within the Ramon Substation expansion area. No Coachella Valley fringe-toed lizard individuals were observed during the field visit; however, no protocol surveys were conducted. The project footprint is located within federally designated critical habitat for the species. Direct impacts to these species could occur in the form of injury and mortality. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground vibrations, noise, and increased dust. These impacts are considered potentially significant. The Coachella Valley fringe-toed lizard is a CVMSCHP covered species and direct impacts to this species is considered a covered activity and mitigated through participation in the CVMSCHP. Mitigation Measure RS-BIO-1 would also be implemented and would require payment of the mitigation fee as required by the CVMSCHP. Implementation of Mitigation Measure RS-BIO-1 would reduce impacts to a level less than significant.

As shown in Table 3.4-3, eight non-listed special-status wildlife species have the potential to occur within the Ramon Substation BSA. The proposed expansion would be limited to the disturbed creosote bush scrub habitat that occurs north of the existing Ramon substation. In addition, surrounding land uses are residential with living areas and buildings located to the west. The flat-tailed horned lizard, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel are CDFW species of special concern and CVMSCHP covered species that are known to occur in active dunes and creosote bush scrub habitats. They are noted to occur north and south of Ramon Road in active dune sites. The loggerhead shrike and vermilion flycatcher are known to forage and hunt within creosote bush scrub. The American badger is known to occur within a variety of habitat, including the present creosote bush scrub. Suitable habitat for the burrowing owl does not occur within the BSA, however, dumped materials observed onsite may provide suitable burrows for the species to utilize.

Implementation of Mitigation Measures RS-BIO-2 and RS-BIO-3 would help to reduce impacts to any special-status wildlife species. Mitigation Measure RS-BIO-2 would require the implementation of biological resource protection measure prior to construction, including worker environmental trainings and review of the approved work area with appropriate fencing. Mitigation Measure RS-BIO-3 would require preconstruction surveys for non-CVMSCHP covered or non-listed special-status wildlife species and work to avoid any impacts to these species. In this context, impacts to non-listed special-status wildlife species would be less than significant with implementation of Mitigation Measures RS-BIO-2 and RS-BIO-3.

Mitigation Measure(s)

VEGA 6

BIO-1 **Preconstruction Nesting Bird Survey:** If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a preconstruction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the northern harrier, loggerhead shrike, black-tailed gnatcatcher, and burrowing owl, will not be disturbed or destroyed. The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly, due to construction activity or noise. If an active nest is identified, the

biologist shall establish an appropriately sized disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

BIO-2 Riparian Habitat or Sensitive Habitat Avoidance: To the greatest extent possible, plans shall avoid impacts to disturbed tamarisk thicket habitats to minimize potential impacts to special-status species.

BIO-3 Minimization of Impacts to Sensitive Species on BLM Land: All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent work spaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. To control for introduction of invasive plant species, tires shall be cleaned prior to entering BLM lands.

BIO-4 Biological Monitoring: A qualified biologist shall be present to monitor all ground-disturbing in vegetated areas and vegetation-clearing activities conducted for the project. During each monitoring day, the biological monitor shall perform clearance survey “sweeps” at the start of each workday that vegetation clearing takes place to minimize impacts on special-status species with potential to occur (including, but not limited to, special-status or nesting bird species, flat-tailed horned lizard, and American badger). The monitor will be responsible for ensuring that impacts to special-status species, nesting birds, and active nests will be avoided to the greatest extent possible. Biological monitoring shall take place until the project area has been completely cleared of any vegetation. If an active nest is identified, the biological monitor shall establish an appropriate disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed no longer active by the biologist. If special-status wildlife species are detected during biological monitoring activities, then consultation with the USFWS or CDFW shall be conducted, and a mitigation plan shall be developed to avoid and offset impacts to these species. Mitigation measures may consist of work restrictions or additional biological monitoring activities after ground-disturbing activities are complete.

BIO-5 Preconstruction Surveys for Burrowing Owl: Preconstruction surveys for burrowing owl shall be conducted within the areas assessed as having burrowing owl potential of the project area and adjacent areas prior to the start of ground-disturbing activities. Two surveys shall be conducted, with the first survey being conducted between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified in the project area during the survey and impacts to those features are unavoidable, consultation with the CDFW shall be conducted and the methods for avoidance or passive relocation should be followed.

BIO-6 **Minimization of Impacts to Palm Springs Pocket Mouse:** Habitats on the VEGA 6 solar facility site and parts of the gen-tie line are suitable for the Palm Springs pocket mouse; presence could be assumed based on proximity of records and recommendations from small mammal experts that were consulted. If presence is assumed, consultation to develop suitable mitigation measures or in-kind mitigation to offset impacts with the CDFW may need to occur. If presence is not assumed, protocol surveys to determine presence or absence of Palm Springs pocket mouse are recommended. A preconstruction small mammal trapping survey shall be conducted for Palm Springs pocket mouse within suitable habitat in all areas of potential permanent and temporary disturbance lead by qualified biologists that are permitted to trap and handle small mammals under Memorandums of Understanding and Scientific Collection Permits with CDFW. Should Palm Springs pocket mouse individuals be identified during the preconstruction survey, consultation to develop suitable mitigation measures with the CDFW will occur. If the project area is found to be absent of Palm Springs pocket mouse, no further mitigation is required.

BIO-7 **Minimization of Impacts to Wetland/Riparian Habitat:** New structures shall not be placed within 50 feet of wetland or riparian habitat boundaries. A construction buffer of 300 feet shall be established around the wetlands and riparian habitats during bird breeding season (February 1 to August 31). Prior to construction, fencing shall be installed approximately 10 feet from the wetland and riparian habitat boundaries within 50 feet of the VEGA 6 project area. Fencing shall be easily visible to construction personnel.

Ramon Substation Expansion

RS-BIO-1 **Coachella Valley Multiple Species Habitat Conservation Plan Fee Payment:** As a signatory to the Coachella Valley Multiple Species Habitat Conservation Plan, the IID shall require a local development mitigation fee prior to the issuance of building permits for the proposed use on the project site at the rates applicable at the time of payment of the fee as set forth in the most recent fee schedule. The Project applicant shall be required to provide documentation to the IID confirming the payment of the local development mitigation fee.

The Coachella Valley milk-vetch and Coachella Valley fringe-toed lizard are federally listed species and CVMSHCP covered species with potential to occur within the project footprint. Direct impacts to these species' as a result of the covered Project activity would be in compliance with the CVMSHCP as long as the IID, a permittee of the CVMSHCP, submits a payment of the mitigation fee, complies with the requirements of CVMSHCP Section 4.2, Conservation Areas; Section 4.4, Avoidance, Minimization, and Mitigation Measures; and Section 4.5 Land Use Adjacency Guidelines, and is in full compliance with CEQA, CESA, and FESA requirements.

RS-BIO-2 **Biological Resource Protection Measures Prior to Construction:**

- a. Prior to the commencement of construction, a project biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with special status plant and wildlife species with the potential to be affected by the proposed Ramon Substation expansion) shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native

habitat. The project biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The project biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct preconstruction surveys for special status species. These biologists shall have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.

- b. The project biologist or designated qualified biologist shall review final plans, designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special status plant and wildlife species. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground disturbing activities, and the installation of BMPs and fencing to protect jurisdictional resources, and shall ensure that all regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a special status wildlife species is encountered within the Project area during construction. Construction activities shall cease until the Project Biologist or qualified biologist determine(s) that the animal will not be harmed or that it has left the construction area on its own. The appropriate regulatory agency(ies) shall be notified within 24 hours of sighting of a special status wildlife species.
- c. Prior to the start of construction, all project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the project biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on jurisdictional resources. At a minimum, the training shall include the following topics: (1) occurrences of special status species and special status vegetation communities in the project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose for resource protection; (3) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid jurisdictional resource areas in the field (i.e., avoid areas delineated on maps or on the Project site by fencing); (5) environmentally responsible construction practices; and (6) the protocol to resolve conflicts that may arise at any time during the construction process.
- d. Prior to any ground disturbance the project boundary will be fenced as a means to protect the adjacent lands. The fencing/signage shall be clearly marked in the field by construction personnel under the guidance of the biologist or designated employee. The fencing/signage will remain in place for the duration of the project activities and no work or other project activities will occur outside of the fenced

area to incidental impacts to nearby species. Upon completion of project activities, the fencing/signage will be removed.

- e. Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into special status vegetation communities. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water.
- f. Clearing shall be confined to the minimum area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent off site spoils location or at a temporary on site location that will not create habitat for special status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations.
- g. The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep walled holes or trenches more than 1 foot deep at the end of each construction workday. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractor.
- h. Wildlife can be attracted to den like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special status species has moved from the structure of its own volition, has been captured and relocated, or has otherwise been removed from the structure.
- i. The spread of dust from work sites to special-status vegetation communities or habitats for special-status species on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered at least twice each day when being used during construction dry periods.

RS-BIO-3 Minimize and Avoid Impacts on Special-Status Species:

- a. The project biologist shall conduct focused pre-construction surveys for federal- and State-listed and other special-status plants. All special-status plant species (including listed threatened or endangered species, and all CRPR 1A, 1B, 2, 3, and 4 ranked species) impacted by project activities shall be documented in pre-construction survey reports. Surveys shall be conducted during the appropriate season in all suitable habitat located within the project footprint. The field surveys and reporting must conform to current CDFW botanical field survey protocol (CDFG 2009) or more recent updates, if available.

- b. The project biologist shall conduct focused pre-construction surveys for any special-status wildlife species, including Coachella Valley fringe-toed lizard, flat-tailed horned lizard, burrowing owl, loggerhead shrike, vermilion flycatcher, Palm Springs pocket mouse, American badger, and Coachella Valley round-tailed ground squirrel. Surveys shall be conducted at least 14 days prior to the start of construction within suitable habitat located within the project footprint. At the discretion of the project Biologist, work will be halted if the species are highly disturbed.

Significance after Mitigation

VEGA 6

The proposed VEGA 6 project has the potential to impact special-status wildlife species during construction. However, implementation of Mitigation Measures BIO-1 through BIO-7 would reduce potential impacts to a level less than significant.

Ramon Substation Expansion

The proposed Ramon Substation expansion has the potential to impact special-status wildlife species during construction. However, implementation of Mitigation Measures RS-BIO-1 through RS-BIO-3 would reduce potential impacts to a level less than significant.

Impact 3.4-2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

VEGA 6

According to CDFW's Sensitive Natural Communities List, there are no sensitive vegetation communities within the VEGA 6 project area. Therefore, the proposed VEGA 6 project would have no impact on any sensitive natural community.

Riparian habitat is present primarily within the eastern and southern portions of the VEGA 6 aquatic resources study area. There is riparian habitat associated with the detention basins within the solar facility site. Additional riparian habitat is associated with the agricultural drains and roadside ditches. Riparian habitat would be directly impacted by grading activities, which would be considered significant. However, the proposed VEGA 6 project would comply with mitigation requirements recommended through consultation with CDFW. Implementation of Mitigation Measures BIO-2, BIO-7, and BIO-8 would reduce impacts to a level less than significant.

Ramon Substation Expansion

There are no sensitive vegetation communities or riparian habitat within the Ramon Substation expansion area. Therefore, the proposed expansion would not have no impact on any riparian habitat or sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFW.



Mitigation Measure(s)

VEGA 6

BIO-8 Aquatic Resources Permitting: If project-related impacts will occur to areas under the jurisdiction of the USACE, CDFW, or RWQCB, a regulatory permit with those agencies will be required prior to the impact occurring. Permitting includes preparation and submittal of a Preconstruction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA, and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. Typically, the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

Riparian habitat would be directly impacted by grading activities, which would be considered significant. However, implementation of Mitigation Measures BIO-2, BIO-7, and BIO-8 would reduce impacts to a level less than significant.

Impact 3.4-3 Would the project have a substantial adverse effect on state or federally-protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filing, hydrological interruption, or other means?

VEGA 6

As previously described, there are several jurisdictional features within the VEGA 6 project area. Construction of the VEGA 6 project has the potential to directly impact these resources; this is a potentially significant impact. However, impacts on aquatic features may require permits from several regulatory agencies pursuant to federal and State laws. With implementation of Mitigation Measures BIO-2, BIO-7, and BIO-8, which ensure the project's adherence to applicable permitting requirements for impacts on jurisdictional waters and which implement avoidance and minimization measures, the project's construction-related impacts on jurisdictional waters would be reduced to a level less than significant.

Ramon Substation Expansion

No jurisdictional aquatic resources were found during the field visit. The proposed Ramon Substation expansion would be limited to the area north of the existing Ramon substation and utilize established access routes or previously disturbed or developed areas. No impacts to jurisdictional aquatic resources would be expected.

Mitigation Measure(s)

VEGA 6

Implement Mitigation Measures Mitigation Measures BIO-2, BIO-7, and BIO-8.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

The proposed VEGA 6 project has the potential to impact aquatic resources including state or federally-protected wetlands. However, implementation of Mitigation Measures Mitigation Measures BIO-2, BIO-7, and BIO-8 would reduce potential impacts to a level less than significant.

Impact 3.4-4 Would the project interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

VEGA 6

Portions of the VEGA 6 project area and gen-tie alignment are located adjacent to areas containing existing disturbances (i.e., roads and active agricultural land). A majority of this area does not contain suitable vegetation or cover to support wildlife movement in the form of a corridor. The solar facility site and the western segment of the gen-tie are adjacent to open space/BLM land but overall these areas are disturbed and do not support wildlife movement opportunities connecting the area to large, undeveloped natural areas to the southwest. Wildlife would choose instead to use the more suitable and less disturbed creosote bush scrub to the west within BLM land as a wildlife movement area. No native nursery sites were identified within the VEGA 6 project area. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur from the development of the VEGA 6 project.

Ramon Substation Expansion

The Ramon Substation expansion area is disturbed and contains very little native vegetation. Additionally, the expansion area is bordered by the existing SCE Mirage substation to the west, the existing Ramon Substation and Ramon Road to the south, which limits wildlife movement through the expansion area. The proposed Ramon Substation expansion would not result in the loss of any potential wildlife movement areas, wildlife corridors or nursery sites as the expansion area is not located within an established habitat corridor or linkage area. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur from the proposed Ramon Substation expansion.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.4-5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

VEGA 6

The proposed VEGA 6 project consists of the construction and operation of a solar energy facility, BESS, and associated electrical transmission lines. Development of the solar facility would be subject to the County's zoning ordinance.

The VEGA 6 project is located on a privately-owned vacant parcel designated Agriculture and within the S-2 zone. Pursuant to Title 9, Division 5, Chapter 19 (County of Imperial 2020), the following use is permitted in the S-2 zone subject to approval of a CUP from Imperial County: major facilities relating to the generation and transmission of electrical energy.

As discussed in Section 3.11, Land Use and Planning, with approval of a CUP, General Plan Amendment, and Zone Change, the VEGA 6 project would be consistent with the Imperial County General Plan, and with biological resources contained therein. Therefore, implementation of the proposed VEGA 6 project would not result in a significant impact associated with the project's potential to conflict with local policies protecting biological resources.

Ramon Substation Expansion

County General Plans and development ordinances may include regulations or policies governing biological resources. For example, policies may include tree preservation, locally designated species survey areas, local species of interest, and significant ecological areas. There are no local ordinances applicable to biological resources on site except for code provisions related to the CVMShCP mitigation fee and land credits. The proposed Ramon Substation expansion would not be in conflict with any local policies or ordinances applicable to existing biological resources on site. No impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.4-6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

VEGA 6

The western and southern buffer of the solar facility site falls within the DRECP with a conservation designation of California Desert National Conserved Lands. None of the VEGA 6 BSA falls within Areas of Environmental Concern. Portions of the western alignment of the gen-tie falls within BLM Renewable Energy Development Focus Area. If habitat within the California Desert National Conserved Lands area of the project is to be impacted, implementation of Mitigation Measure BIO-3 is recommended to minimize for potential significant impacts. The VEGA 6 project will follow the guidelines in Imperial County's Conservation and Open Space Element and meet the requirements

outlined in the plan. Consultation with BLM, County of Imperial Department of Planning and Development, USFWS, and CDFW would be required should listed plant or wildlife species be found to occur. With implementation of Mitigation Measure BIO-3, this impact would be reduced to a level less than significant.

Ramon Substation Expansion

The Ramon Substation expansion area is located within the boundaries of the CVMSHCP. As described above under Impact 3.4-1, the proposed expansion would result in impacts to Coachella Valley milk-vetch and Coachella Valley fringe-toed lizard, which are CVMSHCP covered species. Direct impacts to these species are considered a covered activity and mitigated through participation in the CVMSHCP. In addition, Mitigation Measure RS-BIO-1 would be implemented and would require payment of the mitigation fee as required by the CVMSHCP. Implementation of Mitigation Measure RS-BIO-1 would reduce impacts to a level less than significant.

Mitigation Measure(s)

VEGA 6

Implement Mitigation Measure BIO-3.

Ramon Substation Expansion

Implement Mitigation Measure RS-BIO-1.

3.4.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Project decommissioning activities will require construction vehicles to drive across the solar facility, transmission line, and access roads. Concrete footings, foundations, and pads would be removed using heavy equipment and recycled at an off-site location. All remaining components would be removed, and all disturbed areas would be reclaimed and recontoured. Similar to project construction, decommissioning activities have the potential to directly impact special-status species. This is a potentially significant impact; however, implementation of Mitigation Measures BIO-1 through BIO-7 at the time of decommissioning would reduce impacts to a level less than significant.

Residual

With the implementation of Mitigation Measures BIO-1 through BIO-7, potential impacts to special-status species would be reduced to a level less than significant. With implementation of Mitigation Measures BIO-2, BIO-7, and BIO-8, potential impacts to riparian habitat and aquatic resources would be reduced to a level less than significant. Therefore, the project would not result in residual significant and unmitigable impacts related to biological resources.

3.5 Cultural Resources

This section discusses cultural resources that may be potentially impacted by the proposed VEGA 6 project and Ramon Substation expansion. The following identifies the existing cultural resources within the project site, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project.

Information for this section is summarized from the *VEGA 6 Cultural Resources Inventory Report* prepared by ECORP Consulting, Inc. and the *Ramon Substation Expansion – Cultural Resource Technical Study* prepared by HDR, Inc. These reports are contained in Appendix F1 and Appendix F2 of this EIR, respectively. Both of the cultural reports prepared included a records search, literature review, and pedestrian survey.

3.5.1 Existing Conditions

Pre-history

VEGA 6

The VEGA 6 project site is located in unincorporated Imperial County, within the Imperial Valley approximately 5 miles southwest of the community of Westmorland and 6 miles south of the Salton Sea. The predominant archaeological patterns through time in relation to behavioral traditions and temporal periods, and in specific reference to the Project Area, are discussed below.

Little archaeological material dating to the Early and Middle Holocene is known from the Salton Trough area of the Colorado Desert. The only indications of use of this area during this long period of time consist of large bifacial dart points found on relic lake beds of Lake Cahuilla and on desert pavement. These include projectile point types common in the Mojave Desert such as Lake Mojave, Pinto, and Elko. The sparse occupation during the Middle Holocene may be related to extremely arid climatic conditions and of the lack of water in the Salton Trough (absence of Lake Cahuilla). The Salton Sea Naval Test Base study has produced evidence for Archaic occupation on the west side of the Salton Trough. Pinto series and Elko series projectile points recovered during investigations at the Test Base yielded a date of 5,840 ±250 years before present (BP). These data suggest the desert area of southeastern California was not entirely abandoned during the Middle Holocene. While the population of the region was probably sparse, small bands of mobile people most likely moved among areas where water (at springs) and plant food resources were available (Appendix F1 of this EIR).

A few temporary camps with living surfaces and hearths dating to the period 3,000 to 1,300 BP (Late Archaic Period) are located away from the lakebed in canyons and in the upper Coachella Valley above the maximum lake level. However, two temporary camps dating to the first millennium BC that contain fish and waterfowl bone in the Coachella Valley along the maximum Lake Cahuilla shoreline indicate there may have been a lake stand during this period (Appendix F1 of this EIR)

Higher population and greater numbers of sites appear to correlate with the presence of Lake Cahuilla, which filled the Salton Trough when water flowed into the trough from the Colorado River. The lake dried when water ceased to flow from the river, markedly reducing the availability of resources. Occupation of the Salton Trough during the Late Period (1,300 BP to Contact) correlates with three cycles of inundation and desiccation in Lake Cahuilla that occurred between AD 1200 and 1680. When the lake was present, lacustrine resources such as fish, shellfish, and waterfowl were available. When the lake was absent, very few resources were available and human population was low. Lake Cahuilla

was much larger than the current Salton Sea. Whereas the current Salton Sea shoreline is about 70 meters (230 feet) below sea level, the maximum Lake Cahuilla shoreline was about sea level. To the northwest, in the Coachella Valley, the intermittent Whitewater River entered Lake Cahuilla near Point Happy between what is now Indian Wells and Indio. Several late pre-contact archaeological sites have been investigated along the ancient Lake Cahuilla shoreline in this area. To the south, the entire Imperial Valley between East Mesa and West Mesa was underwater when Lake Cahuilla was present (Appendix F1 of this EIR).

During the Late Period, the northern part of the Salton Trough (northern Salton Sea area and the Coachella Valley) was occupied by ancestors of the Takic-speaking Cahuilla. They also occupied the adjacent Santa Rosa and San Jacinto mountains. Large multi-seasonal residential bases were occupied along the ancient shorelines in the Coachella Valley when Lake Cahuilla was present. These sites contain abundant fish bone, waterfowl bone, and shell from freshwater shellfish. Animal and plant remains indicated use of both lowland and upland resources. Floral remains indicated use of these sites during all four seasons. Cottonwood and Desert Side-Notched arrow points, along with buff ware ceramics and late pre-contact marine shell beads, indicate occupation during the Late Period. These sites were likely occupied during the three Lake Cahuilla lake stands between AD 1200 and 1680. The final desiccation is marked by 15 episodes of fish trap construction (along 15 successively lower shorelines) as the lake receded (Appendix F1 of this EIR).

The Colorado Desert area northeast of the Salton Trough, including the Chuckwalla Valley area, was probably used intermittently prior to AD 1200 by small groups of Yuman-speaking hunter-gatherers that had residential bases or villages along the Colorado River. Sites generated by this use of the desert would consist of small temporary camps and lithic scatters. Ancestors of the Numic-speaking Chemehuevi moved into the southeastern Mojave Desert and northeastern Colorado Desert (including Chuckwalla Valley) on the west side of the Colorado River about AD 1200. Because the Chemehuevi did not have access to the Colorado River Valley (still occupied by Yuman speakers), their use of the desert area was more intensive. Temporary camps used by ancestors of the Chemehuevi should be larger than those dating prior to AD 1200 with a greater quantity and variety of artifacts. There should be differences between low- and medium-elevation camps used for general hunting and gathering and higher elevation camps used for hunting big horn sheep and deer. Lithic scatters will also likely be larger and denser compared to earlier periods. Pottery is present in some of the temporary camps and consists of either locally made brown ware or buff ware that was obtained through trade with the Colorado River groups (Appendix F1 of this EIR).

The southern part of the Salton Trough was occupied by ancestors of the Yuman-speaking Tipai, Kumeyaay, or Kamia. This area included the Imperial Valley, the Yuha Desert, and the mountains to the west and east. The lower Colorado River area was occupied by ancestors of the Yuman-speaking Quechan. Late Prehistoric archaeological sites in this area belong to the Patayan pattern characterized by use of the bow and arrow and ceramics. Patayan I begins about 1,300 BP with the introduction of the bow and arrow, indicated archaeologically by the presence of small projectile points (arrow points) and, along the Colorado River, by the appearance of ceramics. Patayan ceramics first appeared about 1,200 BP on the east shore of Lake Cahuilla and were probably introduced by Yuman people from the Colorado River. Elsewhere, in the southern Salton Trough area, ceramics first appear about 1,000 BP at the beginning of Patayan II. Patayan I ceramics along the Colorado River include Black Mesa Buff and Colorado Beige. Later Patayan II (AD 1000 to 1700) and III (AD 1700 to 1850) ceramics include Tumco Buff and Colorado Buff. There is also a Salton Brown ware that is transitional between the valley buff wares and the Tizon Brown ware of the Peninsular Ranges to the west (Appendix F1 of this EIR).

The Colorado River Yumans practiced horticulture beginning in Patayan I. Domesticates, including corn and squash, probably came from the Hohokam area of Arizona or from northern Mexico. At the time of European contact, the Imperial Valley Yumans were practicing floodplain agriculture using small dams and ditches along the New and Alamo rivers. Horticulture in the Imperial Valley probably began after the last recession of Lake Cahuilla during Patayan III using domesticates obtained from the Colorado River Yumans (Appendix F1 of this EIR).

Along the lower Colorado River, the Patayan settlement-subsistence system consisted of horticulture, hunting, and gathering in riparian habitats. People lived in multi-seasonal residential bases along the river. When Lake Cahuilla was present in the Salton Trough, they also occupied temporary camps for fishing, hunting, and gathering on the eastern shore of Lake Cahuilla. On the west side of the Salton Trough, the Patayan pattern consisted of a seasonal round among upland and lowland habitats. When Lake Cahuilla was present, seasonal residential bases and temporary camps were occupied on the western shore of Lake Cahuilla in order to obtain lacustrine resources including fish, shellfish, and waterfowl (Appendix F1 of this EIR).

Obsidian from the Obsidian Butte source on the southeast margin of the Salton Sea was used for making flaked-stone tools throughout Southern California during the Late Period. However, obsidian from Obsidian Butte could only be obtained when lake levels were low since it is at an elevation of 40 meters (130 feet) below sea level). It is possible that the Imperial Valley Yumans traded obsidian for food resources from other groups when lacustrine resources from Lake Cahuilla were not available. Exchange patterns are also indicated by the presence of numerous marine shell beads (made in the coastal Chumash area) in late pre-contact Takic-speaking Cahuilla sites, but not in Yuman-speaking areas (Appendix F1 of this EIR).

Ramon Substation Expansion

Riverside County environmental conditions during the late Pleistocene and Holocene periods fostered an ecologically rich region for human settlement. This 14,000-year period of human occupation was marked by an overall trend toward increasing aridity and warmer temperatures, with some temporary reversals as well as periods of climatic stability. As environmental conditions changed, Native American populations adapted with modifications in settlement patterns, subsistence practices, social organization and technology.

Three primary geomorphic provinces are found in Riverside County: the Mojave Desert, the Colorado Desert and the Peninsular Ranges. The diverse prehistoric landscape and habitats of the internally drained basins and pluvial (landlocked) lakes of the Mojave Desert region, the fresh water lakes of the Colorado Desert and the prominent ranges of the Peninsular Range were used by ancient and indigenous groups of people, leaving a rich archeological heritage. The following artifacts and features are characteristic of the Prehistoric Period: ceramics, projectile points of many types, grinding implements (mortars and pestles, metates and manos), enigmatic cogstones, shell, bone, clay beads and pendants, evidence of big game hunting.

Ethnohistory

VEGA 6

The Kumeyaay (also known as Ipai and Tipai) are the Yuman-speaking native people of central and southwestern Imperial County, central and southern San Diego County, and the northern Baja Peninsula in Mexico. Spanish missionaries and settlers used the collective term Diegueño for these people, which referred to people living near the presidio and mission of San Diego de Alcalá. Today,

these people refer to themselves as Kumeyaay or as Ipai and Tipai, which are northern and southern subgroups of Kumeyaay language speakers, respectively. The ancestral lands of the Kumeyaay extend north from Todos Santos Bay near Ensenada, Mexico to Agua Hedionda Lagoon in north San Diego County, and east to the Imperial Valley (Appendix F1 of this EIR).

The primary source of Kumeyaay subsistence was vegetal food. Seasonal travel followed the ripening of plants from the lowlands to higher elevations of the mountain slopes. Acorns, grass and sage seeds, cactus fruits, wild plums, pinyon nuts, and agave stalks were the principal plant foods. Women sometimes transplanted wild onion and tobacco plants to convenient locations and sowed wild tobacco seeds. Deer, rabbits, small rodents, and birds provided meat. Village locations were selected for seasonal use and were occupied by exogamous, patrilineal clans or bands. Three or four clans might winter together and disperse into smaller bands during the spring and summer (Appendix F1 of this EIR).

The Kumeyaay were loosely organized into exogamous patrilineal groups termed sibs, clans, gens, and tribelets by ethnographers. The Kumeyaay term was cimul. The cimul used certain areas for hunting and gathering, but apparently did not control a bounded and defended territory, as did the Luiseño and Cahuilla. In addition, members of several different cimul usually lived in the same residential base, unlike the Luiseño, where a single party or clan controlled a village and its territory. Kumeyaay lived in residential bases during the winter and subsisted on stored resources. No permanent houses were built. Brush shelters were temporary and were not reused the next year. Ceremonies, including rites of passage and ceremonies to ensure an abundance of food, were held in the winter residential bases. The cimul leader directed the ceremonies and settled disputes. One of the most important ceremonies was the mourning ceremony. Upon death, the Kumeyaay cremated the body of the deceased. Ashes were placed in a ceramic urn and buried or hidden in a cluster of rocks. The family customarily held a mourning ceremony 1 year after the death of a family member. During this ceremony, the clothes of the deceased individual were burned to ensure that the spirit would not return for his or her possessions (Appendix F1 of this EIR).

The Kumeyaay were geographically and linguistically divided into western and eastern Kumeyaay. The western and eastern Kumeyaay spoke two different dialects. The western Kumeyaay lived along the coast and in the valleys along the drainages west of the mountains. The eastern Kumeyaay lived in the canyons and desert east of the mountains. The western Kumeyaay spent the winter in residential bases in the lowland valleys and then broke into smaller cimul groups that moved gradually eastward toward the mountains, following ripening plants and occupying temporary residential bases along the way. Thus, each group occupied several different residential bases during the course of a year. The eastern Kumeyaay spent the winter in villages on the desert margin where water was available from springs at canyon mouths. They moved up the canyons toward the mountains during spring and summer. The eastern and western Kumeyaay met in the mountains in the fall where they gathered black oak acorns, traded, and held ceremonies. The large residential bases in the mountains appear archaeologically to be village sites (Appendix F1 of this EIR).

The Kumeyaay population was estimated to be between 10,000 and 20,000 at the time of European contact, based on Spanish accounts and ethnographies. Beginning in 1775, the seminomadic life of the Kumeyaay began to change as a result of contact with European-Americans, particularly from the influence of the Spanish missions. Through successive Spanish, Mexican, and Anglo-American control, the Kumeyaay were forced to adopt a sedentary lifestyle and accept Christianity (Appendix F1 of this EIR).

Ramon Substation Expansion

The Ethnohistoric Period of Riverside County at the time of Euro-American contact was distinguished by eight distinct resident cultural groups of Native Americans: Cahuilla (primarily), Gabrielino, Juaneño, Luiseño, Quechan, Halichidhoma, Chemehuevi and Serrano. These groups occupied territories across Southern California.

The majority of western Riverside County was occupied by the Cahuilla who spoke a Cupan language within the Takic family of the Uto-Aztecan language stock. The western part of the county, in the vicinity of the Santa Ana Mountains fell within the territory of the Gabrielinos, Juaneños and Luiseños who also spoke Cupan languages. These three populations had territories that extended from the coast eastward and northeastward across the Santa Ana and Palomar mountains, encompassing Temescal Valley and Lake Elsinore, and extending toward the foothills of the San Jacinto and Santa Rosa Mountains.

Records Search

VEGA 6

ECORP requested a records search for the VEGA 6 project site from the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS) at San Diego State University on September 15, 2020 (Appendix F1 of this EIR). The purpose of the records search was to determine the extent of previous surveys within a 1-mile radius of the VEGA 6 project area (Survey Area), and if previously documented pre-contact or historic-period archaeological sites, architectural resources, or traditional cultural properties exist within this area.

The results of the CHRIS records search were received by ECORP on September 18, 2020 and are contained in the the *Cultural Resources Inventory Report* (Appendix F1 of this EIR).

Two previous cultural resource investigations have been conducted within 1 mile of the VEGA 6 property, covering approximately 5 percent of the total area surrounding the property within the records search radius. Neither study was conducted within the VEGA 6 Survey Area. These studies were both negative for cultural resources; they were conducted in 1983 and 1998 and vary in size from 65 to 458 acres. The results of the records search indicate that none of the property has been previously surveyed for cultural resources; therefore, a pedestrian survey of the VEGA 6 project area was warranted (Appendix F1 of this EIR).

The records search also determined that 61 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the VEGA 6 project area (see Appendix F1 of this EIR for full list). Of these, 60 are believed to be associated with Native American occupation of the vicinity, and one is a historic-era site, associated with irrigation activities. There are no previously recorded cultural resources in or within 600 feet of the VEGA 6 project area.

Ramon Substation Expansion

HDR carried out archival research, including a record search at the Eastern Information Center (EIC) of the CHRIS and a review of available historical aerial photographs and maps to identify potential cultural resources that may be present within the Ramon Substation expansion area. The EIC visit included a search of all previous cultural resource investigations and all previously recorded cultural resources within 0.25 miles of the expansion area. The EIC search identified two previous investigations within the record search area, one of which was carried out in 2000 and covered the entire expansion area. One previously recorded resource – P-33-009665, a historic “jackrabbit

homestead” – was identified approximately 500 feet south of the expansion area. However, this homestead is no longer extant as it was demolished during construction of the existing Ramon Substation. No previously recorded or potential cultural resources were identified within the expansion area as a result of the archival research. In addition to the archival research, an intensive pedestrian survey of the expansion area was undertaken. The results of the pedestrian survey were negative for cultural resources. The results of the EIC record search area provided in Appendix F2 of this EIR.

Sacred Lands File Coordination

VEGA 6

In addition to the records search, ECORP contacted the California Native American Heritage Commission (NAHC) on September 15, 2020, to request a search of the Sacred Lands File for the VEGA 6 project area (Appendix F1 of this EIR). A search of the Sacred Lands File by the NAHC failed to indicate the presence of Native American cultural resources in the VEGA 6 Survey Area. A record of all correspondence is provided in the *Cultural Resources Inventory Report* (Appendix F1 of this EIR).

Ramon Substation Expansion

On June 12, 2023, HDR submitted to the NAHC a request for a search of the Sacred Lands File in correspondence with the Ramon Substation expansion area. The NAHC responded on July 10, 2023, stating that the results of the Sacred Lands File search were negative and provided a contact list for twelve Native American tribes who may also have knowledge of cultural resources in the vicinity of the Ramon Substation expansion area (Appendix F2 of this EIR).

Field Survey

VEGA 6

ECORP conducted a pedestrian survey of the VEGA 6 project area between October 5 and 12, 2020, under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* using 15-meter transects (Appendix F1 of this EIR). ECORP expended 19 person-days in the field. At the time, the ground surface was examined for indications of surface or subsurface cultural resources. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey (Appendix F1 of this EIR).

Ramon Substation Expansion

On June 16, 2023, HDR cultural resource specialists conducted a full-coverage, intensive pedestrian survey of the Ramon Substation expansion area. All accessible portions of the Ramon Substation expansion area were covered with survey transects using 10- to 15-meter spacing. Disturbance from vehicle activity, grading of the existing substation, installation of transmission poles, and other construction activities was observed throughout the expansion area.

Historical Resources

VEGA 6

The VEGA 6 Survey Area had not been previously surveyed for cultural resources; as a result, no resources were previously recorded. The 2020 survey by ECORP identified 39 new cultural resources within the VEGA 6 Survey Area. None of the newly recorded resources within the VEGA 6 Survey Area have been evaluated using NRHP and CRHR eligibility criteria; therefore, it is not currently known if any of these are considered historical resources under CEQA or historic properties under Section 106 NHPA. The process of evaluation requires a combination of archival research and archaeological excavation if sites are not presumed eligible.

The field survey and records search for the VEGA 6 project area did not yield any historic-period or pre-contact cultural resources.

Ramon Substation Expansion

The results of the pedestrian survey were negative for cultural resources within the Ramon Substation expansion area. No artifacts, ecofacts, features, historic structures, midden soils, or other evidence of cultural resources were identified within the expansion area (Appendix F2 of this EIR).

3.5.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

National Historic Preservation Act

Federal regulations (36 CFR Part 800.2) define historic properties as "any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion in, in the National Register of Historic Places." Section 106 of the National Historic Preservation Act (NHPA) (Public Law 89-665; 80 Stat 915; USC 470, as amended) requires a federal agency with jurisdiction over a project to take into account the effect of the project on properties included in or eligible for the (NRHP, and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The term "cultural resource" is used to denote a historic or prehistoric district, site, building, structure, or object, regardless of whether it is eligible for the NRHP.

State

California Office of Historic Preservation

The California Office of Historic Preservation (OHP) administers state and federal historic preservation programs and provides technical assistance to federal, state, and local government agencies, organizations, and the general public with regard to historic preservation programs designed to identify, evaluate, register, and protect California's historic resources.

Section 15064.5 of the CEQA Guidelines also requires that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to museums, historical commissions, associations, and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and

associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (HSC Section 7050.5, PRC Sections 5097.94 et seq.).

CEQA Guidelines: Historical Resources Definition

CEQA Guidelines Section 15064.5(a) defines a historical resource as:

1. A resource listed in, or determined to be eligible by, the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1; Title 14 CCR, Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (PRC Section 5024.1; Title 14 CCR, Section 4852) including the following:
 - a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - b. Is associated with the lives of persons important to our past;
 - c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - d. Has yielded, or may be likely to yield, information important in prehistory or history.
4. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below:

1. When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
2. If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section

15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

3. If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
4. If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

CEQA Guidelines: Human Remains

Section 15064.5 of CEQA Guidelines provides specific guidance on the treatment of human remains pursuant to PRC § 5097.98, which provides specific guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the NAHC:

- d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
 - a. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (HSC Section 7050.5).
 - b. The requirements of CEQA and the Coastal Act.
- e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
 - a. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - b. If the coroner determines the remains to be Native American:
 - i. The coroner shall contact the NAHC within 24 hours
 - ii. The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American
 - iii. The mostly descendent may make recommendations to the landowner of the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or

- c. Where the following conclusions occur the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - i. The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - ii. The descendant fails to make a recommendation; or
 - iii. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.
- f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”

California Health and Safety Code, Section 7050.5

California HSC 7050.5 makes it a misdemeanor to disturb or remove human remains found outside a cemetery. This code also requires a project owner to halt construction if human remains are discovered and to contact the County Coroner.

Local

Imperial County General Plan

The Imperial County General Plan provides goals, objectives, and policies for the identification and protection of significant cultural resources. The Conservation and Open Space Element of the General Plan includes goals, objectives, and policies for the protection of cultural resources and scientific sites that emphasize identification, documentation, and protection of cultural resources. While Section 3.10, Land Use and Planning, of this EIR analyzes the VEGA 6 project’s consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors and Planning Commission ultimately make a determination as to the project’s consistency with the General Plan. Goals and Objectives applicable to the proposed project are summarized in Table 3.5-1.



Table 3.5-1. VEGA 6 Project Consistency with General Plan

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element		
<p>Goal 1 - Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.</p> <p>Objective 1.4 - Ensure the conservation and management of the County's natural and cultural resources.</p>	Consistent	<p>A cultural resources inventory was prepared for the project area. The proposed VEGA 6 project has the potential to encounter undocumented historical, archaeological resources, and human remains. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce potential impacts on historical resources to a level less than significant. With implementation of Mitigation Measure CUL-3, potential impacts to previously unrecorded cultural resources would be reduced to a level less than significant. Mitigation Measure CUL-4 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.</p>
<p>Objective 3.1 - Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.</p>	Consistent	

Source: County of Imperial 2016

Riverside County Planning Department Procedures

The Riverside County Archaeologist reviews all proposed land use projects subject to CEQA and not otherwise deemed categorically exempt. The Riverside County Archaeologist reviews various internal databases for information that might pertain to the age of any buildings found on site, grading permits, ground disturbance activities and building permits. Where buildings are 45 years or older, the project applicant is required to perform an architectural history evaluation to assess potential historic value as part of a Phase I Cultural Resources study. When the study is completed, and if historic-period resources were identified during a survey, a copy of the report is transmitted to the Riverside County Historic Preservation Officer (CHPO) for review and comment. The CHPO sends relevant comments back to the Riverside County Archaeologist.

Vacant parcels within areas known to have prehistoric or historic resources trigger a Phase I Cultural Resources study. Similarly, any parcels with environmental, geomorphological, or vegetative features known to increase the likelihood of cultural resources being present trigger a "Phase I" cultural resources study. Such studies are required to follow the reporting formula found on the Riverside County Planning Department's website which mirror the recommendations published by the SHPO in 1987.

The Riverside County Archaeologist reviews all Phase I cultural resources studies for completeness and reasonable conclusions based on current industry standards in archaeology. The Phase I study serves to advise the Riverside County Archaeologist on matters relating to any identified prehistoric or historic resources, provide the requisite information to complete the project-related CEQA analysis and guide the Riverside County Archaeologist in determining which land use conditions of approval and/or mitigation measures apply to the proposed project.

Copies of studies are provided to tribes, upon their request, as a confidential document. If a proposed project is subject to the requirements of the Traditional Tribal Places Act (commonly referred to as Senate Bill 18), a Phase 1 report is forwarded to tribes who request it as part of consultation under SB 18. Typically, official tribal consultations are scheduled after the report has been sent to the tribe(s) to maximize consultation efforts.

3.5.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to cultural and archaeological resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to cultural resources are considered significant if any of the following occur:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5
- Disturb any human remains, including those interred outside of dedicated cemeteries

Methodology

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description to interact with cultural resources in the VEGA 6 project area and the Ramon Substation expansion area. Based on the extent of these interactions, this analysis considers whether these conditions would result in an exceedance of one or more of the applied significance criteria as identified above.

As previously mentioned, the Cultural Resources Inventory Report was prepared for the VEGA 6 project and the Cultural Resource Technical Study was prepared for the Ramon Substation expansion (Appendix F1 and F2 of this EIR). Both reports provide the results of the SCIC and EIC records search and field survey which have been completed for the project areas pursuant to CEQA.

The information from the cultural reports were reviewed and summarized to present the existing conditions and to identify potential environmental impacts, based on the significance criteria presented in this section. Impacts associated with cultural resources that could result from project construction and operational activities were evaluated qualitatively based on site conditions; expected construction practices; materials, locations, and duration of project construction and related activities.

Impact Analysis

Impact 3.5-1 Would the project cause a substantial adverse change in the significance of a historical resources pursuant to §15064.5?

VEGA 6

Pursuant to *CEQA Guidelines* Section 15064.5 (b), substantial adverse change in the significance of a historical resource would include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. This can occur when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR, NRHP, a local register, or historic resources.
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency establishes by a preponderance of the evidence that the resource is not historically or culturally significant.

The 2020 field survey by ECORP identified 39 new cultural resources within the VEGA 6 Survey Area. None of the newly recorded resources within the VEGA 6 Survey Area have been evaluated using NRHP and CRHR eligibility criteria; therefore, it is not currently known if any of these are considered historical resources under CEQA. Based on this, implementation of the VEGA 6 project could potentially cause a substantial adverse change in the significance of historical resources. The potential impact is considered significant. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce the potential impact associated with historical resources to a level less than significant.

Ramon Substation Expansion

According to the *Ramon Substation Expansion – Cultural Resource Technical Study*, archival research and an intensive pedestrian survey identified no cultural resources within the expansion area (Appendix F2 of this EIR). The negative results of the archival research and field survey support a determination that the proposed expansion would not result in a significant impact to cultural resources. Construction of the Ramon Substation expansion would not entail demolition or substantial alteration of any historical resources within the expansion area. Therefore, the proposed Ramon Substation expansion would not result in a significant impact to any historical resources pursuant to Section 15064.5(b) of the *CEQA Guidelines*.

Mitigation Measure(s)

VEGA 6

CUL-1 Prepare Phase I Cultural Resources Survey Report. Prior to issuance of a grading permit, the project applicant shall retain a qualified archaeologist defined as one meeting the Secretary of the Interior's Professional Qualification Standards (U.S. Department of the Interior 2008) to oversee a Phase I cultural resources survey for the VEGA 6 project, to determine if previously unidentified cultural resources exist within the project site and to relocate and evaluate the previously identified resources that have not yet been evaluated. The methods and results of the survey, as well as the records search, shall be summarized in a Phase I cultural resources survey report that follows the guidelines in *Archaeological Resource Management Reports: Recommended Contents and Format*, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990. The report shall address the requirements of CEQA.

CUL-2 Evaluate Significance of Find. If previously documented but unevaluated and/or newly documented archaeological resources are identified within the project site, they shall be evaluated for inclusion in the CRHR and/or as unique archaeological resources. Should newly documented archaeological resources be found eligible for listing in the CRHR and/or constitute unique archaeological resources, avoidance and preservation in place is the preferred manner of mitigation. If avoidance is not feasible, a treatment plan shall be developed by the qualified archaeologist in coordination with the project applicant and the lead agency that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resources.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.5-2 *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

VEGA 6

Pursuant to CEQA Guidelines §15064.5(c)(1) and (2), an archaeological resource includes an archaeological site that qualifies as a significant historical resource as described for Impact 3.5-1. If an archaeological site does not meet any of the criteria outlined in the provisions under Impact 3.5-1 but meets the definition of a “unique archaeological resource” in PRC 21083.2, the site shall be treated in accordance with the provisions of PRC 21083.2, unless the project applicant and public agency elect to comply with all other applicable provisions of CEQA with regards to archaeological resources. “Unique archaeological resource” means an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1) Contains information needed to answer important scientific research questions that there is a demonstrable public interest in that information.
- 2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- 3) Is directly associated with a scientifically recognized important historic event or person.

CEQA Guidelines 15064.5(c)(4) confirms that if an archaeological resource is neither a unique archaeological nor an historic resource, the effects of the project on those resources shall not be considered a significant effect on the environment.

As discussed above, although the Cultural Resources Inventory Report (Appendix F1 of this EIR) identified 39 new cultural resources within the VEGA 6 Survey Area, none of the newly recorded resources within the VEGA 6 Survey Area have been evaluated using NRHP and CRHR eligibility criteria. However, surface sediments found within the VEGA 6 Survey Area consist of Holocene surficial sediments in which regional pre-contact archaeological deposits have been previously identified and documented, and upon which pre-contact resources were identified in the cultural report. The potential for subsurface cultural deposits still exists due to the presence of sediments contemporaneous with human occupation of the region, and the location of the VEGA 6 Survey Area within the dry lakebed or along the ancient shoreline of Lake Cahuilla (Appendix F1 of this EIR).

Therefore, although unlikely, the potential for unearthing a previously undiscovered archaeological resource during construction does exist. This potential impact is considered significant. However, implementation of Mitigation Measures CUL-3 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant.

Ramon Substation Expansion

According to the *Ramon Substation Expansion – Cultural Resource Technical Study* (Appendix F2 of this EIR), the soils in the Ramon Substation expansion area are young and their geomorphic surfaces are unstable and the possibility exists for archaeological sites to be buried under them. Therefore, the potential to encounter buried archaeological resources in the expansion area during construction does exist. This potential impact is considered significant. However, implementation Mitigation Measures RS-CUL-1 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant.

Mitigation Measure(s)

VEGA 6

CUL-3 Evaluate Significance of Find (Unknown Archaeological Resources). In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a “stop work” notice or otherwise interfere with the project’s continuation except as set forth in this paragraph.

In the event of an unanticipated discovery of archaeological materials during construction, the applicant shall retain the services of a qualified professional archaeologist, meeting the Secretary of the Interior’s Standards for a Qualified Archaeologist, to evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.

Ramon Substation Expansion

RS-CUL-1 Evaluate Significance of Find (Unknown Archaeological Resources). In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the County of Riverside Planning Department. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a “stop work” notice or otherwise interfere with the project’s continuation except as set forth in this paragraph.

In the event of an unanticipated discovery of archaeological materials during construction, the applicant shall retain the services of a qualified professional archaeologist, meeting the Secretary of the Interior's Standards for a Qualified Archaeologist, to evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.

Impact 3.5-3 Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

VEGA 6

The VEGA 6 project site is not located on a known cemetery and no human remains are anticipated to be disturbed during project construction. However, during construction, grading, excavation, and trenching would be required. It was also noted that in other areas along the ancient shoreline and lakebed of Lake Cahuilla, extensive archaeological deposits with human remains have been encountered (Appendix F1 of this EIR). Although the potential for encountering subsurface human remains within the VEGA 6 project site is low, there remains a possibility that human remains are present beneath the ground surface and such remains could be exposed during construction. The potential to encounter human remains is considered a potentially significant impact. Mitigation Measure CUL-4 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA. Therefore, with implementation of Mitigation Measure CUL-4, impacts would be less than significant.

Ramon Substation Expansion

Ground disturbing activities during construction of the proposed Ramon Substation expansion could adversely impact presently unidentified human remains, including those interred outside of dedicated cemeteries. Although the potential for encountering subsurface human remains within the expansion area is low, there remains a possibility that human remains are present beneath the ground surface and such remains could be exposed during construction. The potential to encounter human remains is considered a potentially significant impact. Mitigation Measure RS-CUL-2 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA. Therefore, with implementation of Mitigation Measure RS-CUL-2, impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

CUL-4 Human Remains. If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Imperial County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented.
- If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the Imperial County Planning and Development Services Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Ramon Substation Expansion

RS-CUL-2 Human Remains. If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented.
- If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the

site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the County of Riverside Planning Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

3.5.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. No impact is anticipated from restoration activities as the ground disturbance and associated impacts on cultural resources will have occurred during the construction phase of the proposed project.

Residual

Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce potential impacts on historical resources to a level less than significant. With implementation of Mitigation Measure CUL-3, potential impacts to previously unrecorded cultural resources would be reduced to a level less than significant. Mitigation Measure CUL-4 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA. No unmitigable impacts on cultural resources would occur with implementation of the proposed project.

3.6 Geology and Soils

This section includes an evaluation of the project in relation to existing geologic and soils conditions within the project site. Information contained in this section is summarized from the *Geotechnical Report for the VEGA 6 Solar Project* prepared by Landmark Consultants, Inc. This report is contained in Appendix G of this EIR.

3.6.1 Existing Conditions

Regional Setting

VEGA 6

The VEGA 6 project site is located in the Salton Trough region of the Colorado Desert physiographic province of southeastern California. The Salton Trough encompasses the Coachella, Imperial and Mexicali Valley which extend from northeast of Palm Springs near San Geronimo Pass to the Gulf of California. The Salton Trough is bounded on the northeast by the San Andreas Fault and Chocolate Mountains and the southwest by the Peninsular Range and faults of the San Jacinto Fault Zone (Appendix G of this EIR).

The Salton Trough represents the northward extension of the Gulf of California, containing both marine and non-marine sediments deposited since the Miocene Epoch. Tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity (Appendix G of this EIR).

The Imperial Valley is directly underlain by lacustrine deposits, which consist of interbedded lenticular and tabular silt, sand, and clay. The Late Pleistocene to Holocene (present) lake deposits are probably less than 100 feet thick and derived from periodic flooding of the Colorado River which intermittently formed a freshwater lake (Lake Cahuilla). Older deposits consist of Miocene to Pleistocene non-marine and marine sediments deposited during intrusions of the Gulf of California. Basement rock consisting of Mesozoic granite and Paleozoic metamorphic rocks are estimated to exist at depths between 15,000 - 20,000 feet (Appendix G of this EIR).

Ramon Substation Expansion

The Ramon Substation expansion area is located in the northern Coachella Valley, an elongated rift valley that forms the northwestern extent of the Salton Trough. The expansion area is approximately two miles southwest of the Indio Hills, a low range formed by uplift between the two main faults of the San Andreas fault system (Appendix F2 of this EIR).

Local Geology and Surface Conditions

VEGA 6The VEGA 6 project site is located in the Imperial Valley region of the California low desert. According to the Geotechnical Report prepared for the VEGA 6 project, the northern 1/3 of the solar energy facility site consists of surficial hard silty clay/clay soils, followed by interbedded layers of dense to very dense clayey/sandy silts, sands/silty sand, and very stiff to hard clay soils and the southern 2/3 of the project site consists of surficial medium dense to very dense sand/silty sand soils with layers of dense to very dense clayey/sandy silts and very stiff to hard clay soils (Appendix G of this EIR).

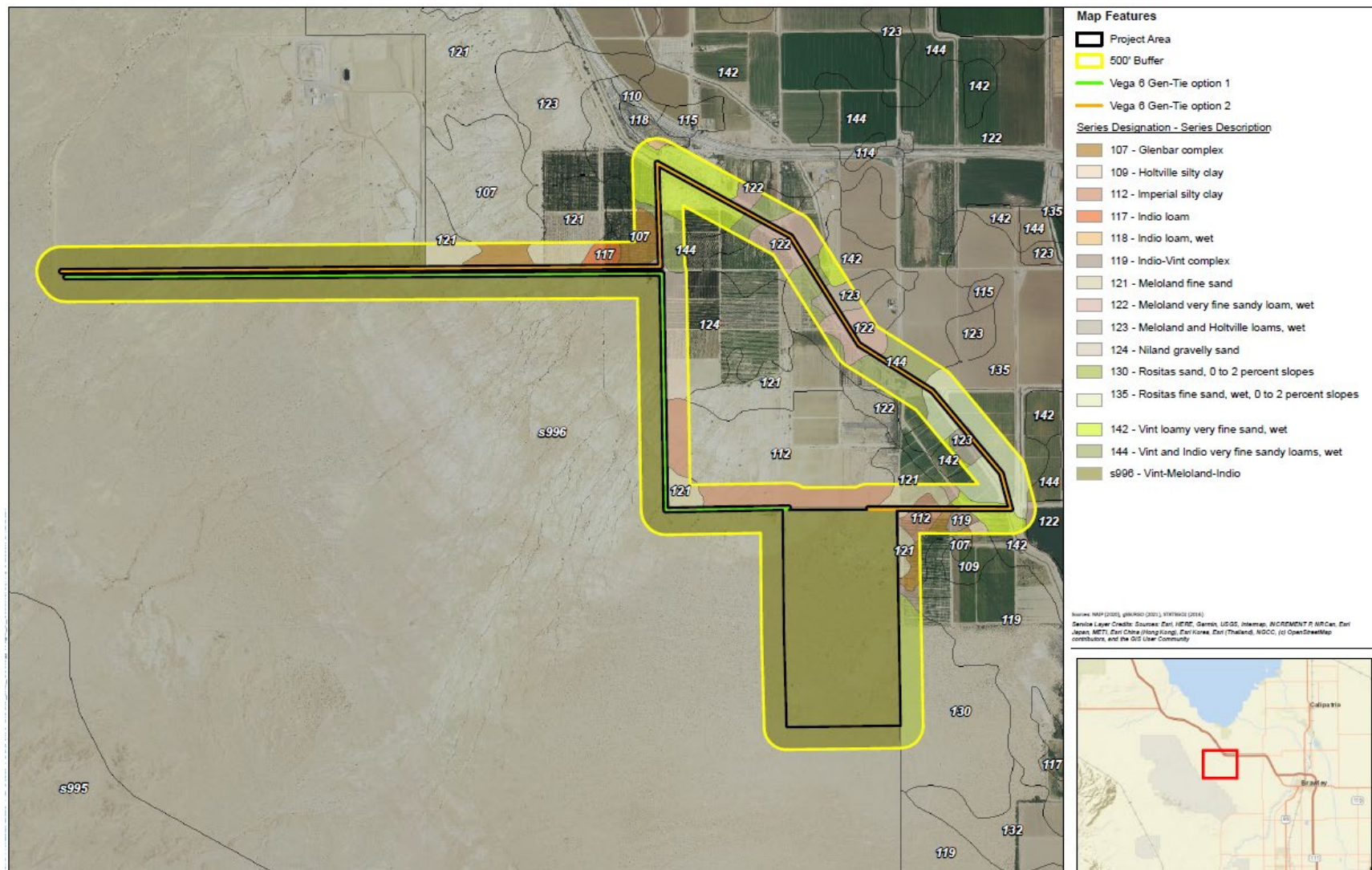
As shown in Figure 3.6-1, soil types mapped on the VEGA 6 project site include:

- 107 – Glenbar complex
- 109 – Holtville silty clay
- 112 – Imperial silty clay
- 117 – Indio loam
- 118 – Indio loam, wet
- 119 – Indio-Vint complex
- 121 – Meloland fine sand
- 122 – Meloland very fine sandy loam, wet
- 123 – Meloland and Holtville loams, wet
- 124 - Niland gravelly sand
- 130 - Rositas sand, 0 to 2 percent slopes
- 135 - Rositas fine sand, wet, 0 to 2 percent slopes
- 142 – Vint loamy very fine sand, wet
- 144 – Vint and Indio very fine sandy loams, wet
- s996 – Vint-Meloland-Indio

Ramon Substation Expansion

The surface geology of the Coachella Valley where the Ramon Substation expansion area is located consists of Quaternary alluvium. The majority of soils in the expansion area are classified as Myoma fine sand and Carsitas gravelly sand is found in approximately 15 percent of the expansion area north and east of the existing Ramon Substation, and a small area (less than 5 percent of the total acreage) of Coachella fine sand exists in the far eastern part of the expansion area (Appendix F2 of this EIR).

Figure 3.6-1. VEGA 6 Project Site Soil Types



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Faulting and Seismicity

Earthquakes are the result of an abrupt release of energy stored in the earth. This energy is generated from the forces which cause the continents to change their relative position on the earth's surface, a process called "continental drift." The earth's outer shell is composed of a number of relatively rigid plates which move slowly over the comparatively fluid molten layer below. The boundaries between plates are where the more active geologic processes take place. Earthquakes are an incidental product of these processes.

VEGA 6

The VEGA 6 project site is located in the seismically active Imperial Valley of southern California with numerous mapped faults traversing the region including the San Andreas, San Jacinto, and Elsinore Fault Zones in southern California. The Imperial fault represents a transition from the more continuous San Andreas fault to a more nearly echelon pattern characteristic of the faults under the Gulf of California. The criterion for fault classification adopted by the California Geological Survey defines Earthquake Fault Zones along Holocene-active or pre-Holocene faults. Earthquake Fault Zones are regulatory zones that address the hazard of surface fault rupture. A Holocene-active fault is one that has ruptured during Holocene time (within the last 11,700 years). A pre-Holocene fault is a fault that has not ruptured in the last 11,700 years. Pre-Holocene faults may still be capable of surface rupture in the future but are not regulated by the Alquist-Priolo Act. Figure 3.6-2 shows the VEGA 6 project site in relation to local faults.

Based on the review of current Earthquake Fault Zone maps, the VEGA 6 project site does not lie within an Alquist-Priolo Earthquake Fault Zone. The nearest zoned fault to the VEGA 6 project site is the Superstition Hills fault located approximately 4.5 miles southwest of the project site (Appendix G of this EIR).

Ramon Substation Expansion

The Ramon Substation expansion area is located in the Western Coachella Valley which is traversed by several active and potentially active fault zones, including the San Andreas Fault. Based on the review of current Earthquake Fault Zone maps, the Ramon Substation expansion area is not located within an Alquist-Priolo Earthquake Fault Zone (CGS 2023). The nearest zoned fault to the expansion area is the San Andreas Fault, approximately 1.3 miles north of the Ramon Substation expansion area.

Seismic Ground Shaking

Ground shaking is the byproduct of an earthquake and is the energy created as rocks break and slip along a fault during an earthquake. The amount of ground shaking that an area may be subject to during an earthquake is related to the proximity of the area to the fault, the depth of the hypocenter (focal depth), location of the epicenter and the size (magnitude) of the earthquake. Soil type also plays a role in the intensity of shaking. Bedrock or other dense or consolidated materials are less prone to intense ground shaking than soils formed from alluvial deposition.

VEGA 6

As the VEGA 6 project site is located in the seismically active southern California region, the primary seismic hazard at the project site is the potential for strong ground shaking during earthquakes along

the San Andreas, Elmore Ranch, and Imperial faults. The VEGA 6 project site is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. Ground motions are dependent primarily on the earthquake magnitude and distance to the rupture zone (Appendix G of this EIR).

Ramon Substation Expansion

As previously mentioned, the Ramon Substation expansion area is located within a seismically active region and located approximately 1.3 miles north of the San Andreas Fault. According to the Western Coachella Valley Area Plan (WCVAP), the Western Coachella Valley has experienced several earthquakes of moderate magnitude accompanied by seismic groundshaking since records have been kept (County of Riverside 2021). The Ramon Substation expansion area is considered likely to be subject to moderate to strong seismic groundshaking due to its location in a seismically active region.

Groundwater Conditions

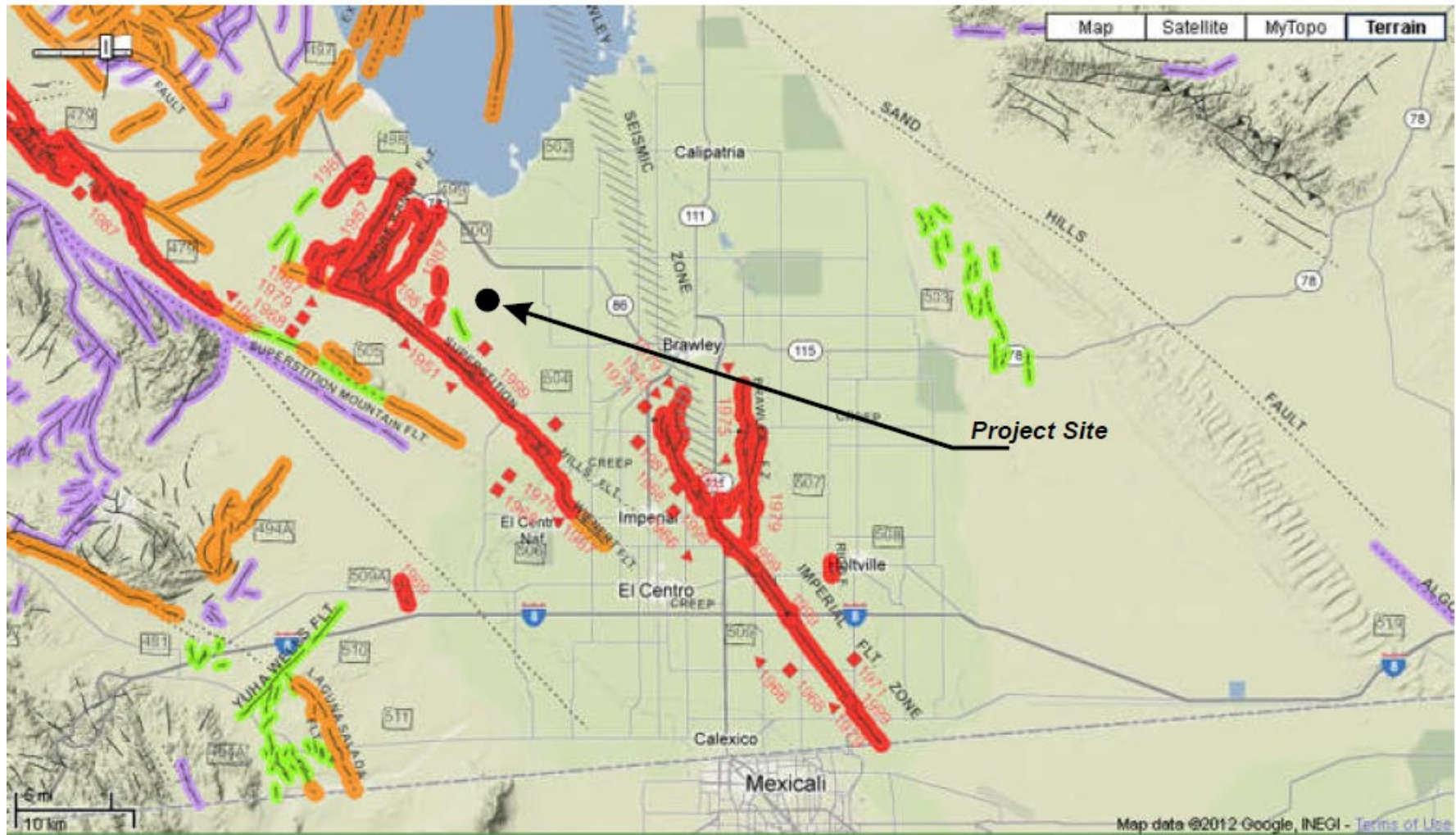
VEGA 6

During subsurface exploration of the solar energy facility site, groundwater was encountered at approximately 48 feet below the existing grade at the northwestern corner of the solar energy facility site (Appendix G of this EIR).

Ramon Substation Expansion

The Ramon Substation expansion area does not contain any groundwater wells. The nearest groundwater well (KW_013) is located approximately 1.2 miles west of the Ramon Substation expansion area. Groundwater at this well was encountered approximately 518 feet below ground surface (bgs) (DWR 2023).

Figure 3.6-2. Regional VEGA 6 Fault Map



Source: California Geological Survey 2010 Fault Activity Map of California
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>

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Surface Rupture

Surface rupture occurs when movement along a fault, results in actual cracking or breaking of the ground along a fault during an earthquake; however, it is important to note that not all earthquakes result in surface rupture. Surface rupture almost always follows preexisting fault traces, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Fault creep is the slow rupture of the earth's crust. Sudden displacements are more damaging to structures because they are accompanied by shaking.

VEGA 6

As previously mentioned, the nearest zoned fault to the project site is the Superstition Hills fault located approximately 4.5 miles southwest of the project site. Based on this distance, the potential for surface fault rupture to occur on the project site is considered low.

Ramon Substation Expansion

As previously mentioned, the Ramon Substation expansion area is located approximately 1.3 miles north of the San Andreas Fault. Based on this distance, the potential for surface fault rupture to occur on the expansion area is considered low.

Liquefaction

Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to reduce the vertical effective stress (suspending the soil particles in water), the soil strength decreases and the soil behaves as a liquid (similar to quicksand). Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations. Four conditions are generally required for liquefaction to occur (Appendix G of this EIR):

1. The soil must be saturated (relatively shallow groundwater);
2. The soil must be loosely packed (low to medium relative density);
3. The soil must be relatively cohesionless (not clayey); and
4. Ground shaking of sufficient intensity must occur to function as a trigger mechanism.

VEGA 6

The granular soil encountered at the points of exploration at the VEGA 6 project site is not considered to be susceptible to liquefaction due to the high density of the sands and groundwater being encountered deeper than 40 feet. Therefore, due to the high density of the subsurface sandy soils and since groundwater is deeper than 40 feet, liquefaction is unlikely to be a potential hazard at the VEGA 6 site (Appendix G of this EIR).

Ramon Substation Expansion

According to the County of Riverside's GIS Mapping Portal (Map My County), the Ramon Substation expansion area is mapped in an area of moderate susceptibility to liquefaction (RCIT 2023).

Landslides

Landslides are the descent of rock or debris caused by natural factors, such as the pull of gravity, fractured or weak bedrock, heavy rainfall, erosion, and earthquakes.

VEGA 6

The hazard of landslides is unlikely on the VEGA 6 project site due to the regional planar topography. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed on the site during the geotechnical site investigation (Appendix G of this EIR). Additionally, according to the County of Imperial General Plan, Seismic and Public Safety Element (County of Imperial 1997), the VEGA 6 project site is not located within an area with the potential for landslides.

Ramon Substation Expansion

According to the WCVAP, the Western Coachella Valley experiences secondary seismic hazards that result from the interaction of groundshaking with existing soil and bedrock conditions which includes landslides. According to Figure 16, Slope Instability, in the WCVAP, the Ramon Substation expansion area is not located in an area mapped with potential for seismically induced landslides and rockfalls (County of Riverside 2021).

Lateral Spreading

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. This movement is generally due to failure along a weak plane and may often be associated with liquefaction.

VEGA 6

Because the VEGA 6 project site is unlikely to experience landslides and is not located within an area susceptible to liquefaction, lateral spreading is also considered to be unlikely to be a potential hazard at the site (Appendix G of this EIR).

Ramon Substation Expansion

The Ramon Substation expansion area is relatively flat, therefore there is a low potential for lateral spreading to occur on-site.

Land Subsidence

Land subsidence is the sinking of the ground surface caused by the compression of earth materials or the loss of subsurface soil because of underground mining, tunneling, or erosion. The major causes of subsidence include fluid withdrawal from the ground, decomposing organics, underground mining or tunneling, and placing large fills over compressible earth materials. The effective stress on underlying soils is increased resulting in consolidation and settlement. Subsidence may also be caused by tectonic processes.

VEGA 6

Based on the site conditions and gentle to relatively flat topography across the majority of the VEGA 6 project site, ground subsidence is considered unlikely to occur (Appendix G of this EIR).

Ramon Substation Expansion

According to the County of Riverside's GIS Mapping Portal (Map My County), the Ramon Substation expansion area is located in an area susceptible to land subsidence (RCIT 2023).

Expansive Soils

Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may result in unacceptable settlement or heave of structures.

VEGA 6

According to the Geotechnical Report prepared for the VEGA 6 project, heavy clays, which are highly expansive, exist in the northern 1/3 of the solar energy facility site. The native surface clays on the solar energy facility site likely exhibit high swell potential (Expansion Index, EI = 91 to 130) when correlated to Plasticity Index tests performed on the native soils (Appendix G of this EIR).

The clay can become expansive when wetted and can shrink with moisture loss (drying). Large shrinkage cracks and blocky fracturing of the clays occur with long periods of drying. Causes for soil saturation include standing storm water, broken utility lines, or capillary rise in moisture upon sealing the ground surface to evaporation. Moisture losses can occur with lack of landscape watering, close proximity of structures to downslopes and root system moisture extraction from deep rooted shrubs and trees placed near the foundations (Appendix G of this EIR).

Ramon Substation Expansion

The Ramon Substation expansion area consists of Myoma and Carsitas soils, neither of which are considered expansive soils (USDA 2023). Both soils are characterized as somewhat excessively drained, with very slow runoff, and rapid permeability, making them unable to undergo significant volume changes (shrink or swell) (USDA 2015a and 2015b). Therefore, the potential for soil expansion within the Ramon Substation expansion area is considered low.

Collapsible Soils

Collapsible soil generally consists of dry, loose, low-density material that have the potential collapse and compact (decrease in volume) when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits.

VEGA 6

Due to the cohesive nature of the subsurface soils and the natural density (dense to very dense) of the granular soils, the potential for hydro-collapse of the subsurface soils at the VEGA 6 project site is considered very low (Appendix G of this EIR).

Ramon Substation Expansion

It is unknown whether collapsible soils are present on the Ramon Substation expansion area. Corrosive Soils

VEGA 6

Corrosive soils can damage underground utilities including pipelines and cables, or weaken roadway structures. According to the Site Corrosivity Assessment Report prepared for the VEGA 6 project (included in Appendix G of this EIR), the solar energy facility site has varying levels of soil corrosivity. The soil in the northern and southern end of the solar energy facility site is considered moderately corrosive and the soil on the eastern side of the solar energy facility site is considered highly corrosive. As such, screening tests concluded that the soil is considered aggressive enough to initiate and support the corrosion of buried metallic utilities (Appendix G of this EIR).

Ramon Substation Expansion

The soils underlying the Ramon Substation expansion area do not include any clay or silty clay soils, which are known to be corrosive. Myoma soils and Carsitas soils located on-site have low corrosivity potential.

Paleontological Resources

Paleontological resources (fossils) are the remains of prehistoric plant and animal life. Fossil remains, such as bones teeth, shell, and wood, are found in geologic deposits (rock formations) within which they were originally buried. Many paleontological fossil sites are recorded in Imperial County and have been discovered during construction activities. Paleontological resources are typically impacted when earthwork activities, such as mass excavation cut into geological deposits (formations) with buried fossils.

VEGA 6

Late Pleistocene to Holocene Lake Cahuilla deposits exist within the project area. Therefore, there is a possibility that exposed and/or underlying deposits may be located within the project area. Lake Cahuilla Beds have yielded well-preserved subfossil remains of freshwater clams and snails and sparse remains of freshwater fish. The paleontological resources of the Lake Cahuilla Beds are considered significant because of the paleoclimatic and palaeoecological information they can provide, and these deposits are therefore assigned a high paleontological potential. Therefore, the site does have paleontological sensitivity, with high potential for paleontological resource discovery.

Ramon Substation Expansion

According to the County's GIS Mapping Portal (Map My County), the Ramon Substation expansion area is located in an area with low sensitivity for paleontological resources (RCIT 2023).

3.6.2 Regulatory Setting

This section identifies and summarizes laws, policies, and regulations that are applicable to the project.

Federal

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by NEHRP, which refined the description of agency responsibilities, program goals, and objectives.

NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which the project would be required to adhere.

State

Alquist-Priolo Special Studies Earthquake Hazards Act

The APEHA was passed into law following the destructive February 9, 1971 San Fernando earthquake. The APEHA provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the APEHA is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. The state geologist (Chief of the California Division of Mines and Geology) is required to identify “earthquake fault zones” along known active faults in California. Counties and cities must withhold development permits for human occupancy projects within these zones unless geologic studies demonstrate that there would be no issues associated with the development of projects. The project site is not located within a currently mapped APEHA zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California PRC Sections 2690–2699.6) directs the DOC’s CGS to map areas of earthquake hazard, including areas of liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for liquefaction, landslides, strong ground shaking, or other earthquake and geologic hazards. The Seismic Hazards Mapping Act requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development (DOC 2019).

As required by the act, the CGS has issued official Seismic Hazard Zone Maps that indicate zones of required investigation for earthquake faulting, landslides, and liquefaction. Prior to approving specific types of development, local permit authorities require a project’s applicant to submit a geotechnical investigation report for review and approval by the jurisdiction.

California Building Code

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. CCR Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment, known as building standards. The California Building Code (CBC) is based on the Federal Uniform Building Code used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The California Health and Safety Code (HSC) Section and 18980 HSC Section 18902 give CCR Title 24 the name of California Building Standards Code. The updates to the 2019 California Building Standards Code were published on January 1, 2021, with an effective date of July 1, 2021.

Local

County of Imperial Land Use Ordinance

Title 9 Division 15 (Geological Hazards) of the County Land Use Ordinance has established procedures and standards for development within earthquake fault zones. Per County regulations, construction of buildings intended for human occupancy are prohibited across the trace of an active fault. An exception exists when such buildings located near the fault or within a designated Special Studies Zone are demonstrated through a geotechnical analysis and report not to expose a person to undue hazard created by the construction.

County of Imperial General Plan

The County of Imperial General Plan, Seismic and Public Safety Element identifies potential natural and human-induced hazards and provides policy to avoid or minimize the risk associated with hazards. The Seismic and Public Safety Element identifies ‘lifelines and critical facilities’ whose disruption could endanger the public safety. Lifelines are defined as networks of services that extend over a wide area and are vital to the public welfare, and can be classified into four categories: energy, water, transportation, and communications. The IID has a formal Disaster Readiness Standard Operating Procedure for the Water Department, Power Department, and the entire District staff for response to earthquakes and other emergencies.

Table 3.6-1 analyzes the consistency of the VEGA 6 project with specific policies contained in the County of Imperial General Plan associated with geology, soils, and seismicity. While this EIR analyzes the VEGA 6 project’s consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.6-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
Seismic and Public Safety Element		
Goal 1. Include public health and safety considerations in land use planning.	Consistent	Division 15 of the County Land Use Ordinance has established procedures and standards for development within earthquake fault zones. Per County regulations, construction of buildings intended for human occupancy which are
Objective 1.1. Ensure that data on geological hazards is incorporated into the land use review process, and future development process.		



Applicable Policies	Consistency Determination	Analysis
Objective 1.3. Regulate development adjacent to or near all mineral deposits and geothermal operations.		<p>located across the trace of an active fault are prohibited. An exception exists when such buildings located near the fault or within a designated Special Studies Zone are demonstrated through a geotechnical analysis and report not to expose a person to undue hazard created by the construction.</p> <p>Since the VEGA 6 project site is located in a seismically active area, the project is required to be designed in accordance with the CBC for near source factors derived from a design basis earthquake based on a peak ground acceleration of 0.48 gravity. It should be noted that, the VEGA 6 project would be remotely operated and would not require any habitable structures on site. In considering these factors in conjunction with mitigation requirements outlined in the impact analysis, the risks associated with seismic hazards would be minimized.</p> <p>A preliminary geotechnical study has been prepared for the proposed VEGA 6 project. The preliminary geotechnical study has been referenced in this environmental document. Additionally, a design-level geotechnical investigation will be conducted to evaluate the potential for site specific hazards associated with seismic activity.</p>
Objective 1.4. Require, where possessing the authority, that avoidable seismic risks be avoided; and that measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service.		
Objective 1.7. Require developers to provide information related to geologic and seismic hazards when siting a proposed project.		
Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.		
Objective 2.2. Reduce risk and damage due to seismic hazards by appropriate regulation.		
Objective 2.5 Minimize injury, loss of life, and damage to property by implementing all state codes where applicable.		
Objective 2.8 Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures.		

Source: County of Imperial 1997

County of Riverside General Plan

The General Plan includes several policies related to seismic hazards, code conformance, and development regulations that are enforced to minimize the potential impacts of seismic and geologic hazards on the County’s citizens, property, and economy (County of Riverside 2021). The General Plan policies applicable to the proposed Ramon Substation expansion area are listed below.

SAFETY ELEMENT

- **S 2.1** Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following:
 - a) Require geologic studies or analyses for critical structures, and lifelines, high-occupancy, schools, and high-risk structures, within 0.5 mile of all Quaternary to historic faults shown

on the Earthquake Fault Studies Zones map. The County geologist shall review and make recommendations based on the results to reduce the potential risk.

- b) Request geologic trenching studies within all designated Earthquake Fault Studies Zones, unless adequate evidence, as determined and accepted by the County Engineering Geologist, is presented. The County of Riverside may require geologic trenching of non-zoned faults for especially critical or vulnerable structures or lifelines.
 - c) Require that infrastructure systems, such as energy, communications, and transportation infrastructure be designed to resist, without failure to the extent feasible, their crossing of a fault, should fault rupture occur.
 - d) Support efforts by the California Department of Conservation, California Geological Survey to develop geologic and engineering solutions in areas of ground deformation due to faulting and seismic activity in those areas where a through-going fault cannot be reliably located.
 - e) Encourage and support efforts by the geologic research community to define better the locations and risks of Riverside County faults. Such efforts could include data sharing and database development with regional entities, other local governments, private organizations, utility agencies or companies, and local universities.
- **S 2.2** Request geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landslides, or settlement, for any building proposed for human occupancy and any structure whose damage would cause harm, except for accessory structures/buildings, as determined by County officials. Any studies or surveys should be prepared/completed by a state-licensed professional.
 - **S 2.3** Require that a state-licensed professional investigate the potential for liquefaction in areas designated as underlain by “Susceptible Sediments” and “Shallow Ground Water” for all general construction projects, except for accessory buildings.
 - **S 2.4** Request that engineered slopes be designed to resist seismically induced failure as appropriate. For lower-risk projects, this may include requiring slope design to be based on pseudo-static stability analyses using soil engineering parameters that are established on a site-specific basis. For higher risk projects, appropriate standards may include requiring the stability analyses to factor in the intensity of expected ground-shaking, using a Newmark-type deformation analysis or other analyses as appropriate.
 - **S 2.6** Request structures in liquefaction and slope stability hazards to mitigate the potential of seismically induced differential settlement through appropriate techniques as determined by geotechnical studies, including a 100-percent maximum variation of fill depths as warranted.
 - **S 2.8** Request the following in landslide potential hazard management zones, or when deemed necessary for compliance with CEQA, prior to the issuance of development permits or approval of project designs:
 - a) Preliminary geotechnical and geologic investigations, including certification regarding the stability of the site against adverse effects of earthquake and subsidence.
 - b) Evaluations of site stability, including any possible impact on adjacent properties.

- c) Consultant reports, investigations, and design recommendations required for grading permits, building permits, and subdivision applications, shall be prepared by state-licensed professionals.
- **S 2.9** Require new development in areas prone to geologic hazards (e.g., landslides, steep topography, slope instability) to be adequately mitigated against these hazards, as feasible. Any development in hillside areas should prepare drainage plans to direct runoff and drainage away from potentially unstable slopes. New developments should incorporate hillside design techniques and features to mitigate and support slope stability.
- **S 2.15** Request geotechnical studies within documented subsidence zones, as well as zones that may be susceptible to subsidence, prior to the issuance of development permits. Within the documented subsidence zones of the Coachella, San Jacinto, and Elsinore Valleys, the studies should address the potential for reactivation of these zones, consider the potential impact on the project, and provide adequate and acceptable mitigation measures.

County of Riverside Municipal Code (RMC)

The following are applicable to the proposed Ramon Substation expansion area:

- Title 15, Buildings and Construction, contains provisions related to building regulations, and incorporates the CBC by reference. Chapter 15.16, Earthquake Fault Area Construction Regulations was adopted pursuant to the requirements of the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code, Section 2621, et seq.) and the adopted policies and criteria of the State Mining and Geology Board.

Riverside County Ordinance No. 547 – Implementation of the Alquist-Priolo Earthquake Fault Zoning Act

This ordinance establishes the policies and procedures used by the County of Riverside to implement the A-P Act. Among other things, it requires all projects proposed within an “earthquake fault zone,” as shown on the maps prepared by the State Geologist to comply with the provisions of the A-P Act. It establishes regulations for construction, including for grading, slopes and compaction, erosion control, retaining wall design, and earthquake fault zone setbacks.

Riverside County Ordinance No. 457 – Riverside County Building and Fire Codes

Every three years, the County’s Building and Fire Codes are adapted from the CBSC (CCR Title 24), which includes both building and fire codes. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development authorized by the County does not pose a threat to the health, safety, or welfare of the public. The CBSC contains minimum baseline standards to guard against unsafe development. County of Riverside Ordinance No. 457 also adopts, in some cases with modification to a stricter standard, a number of California State’s Title 24 codes (fire, building, plumbing, electrical, etc.). The Riverside County Department of Building and Safety provides technical expertise in reviewing and enforcing these codes.

3.6.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to geologic and soil conditions, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to geology and soils are considered significant if any of the following occur:

- Directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:
 - o Rupture of a known earthquake fault, as delineated on the most recent AP Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault; (Refer to Division of Mines and Geology Special Publication 42)
 - o Strong seismic ground shaking
 - o Seismic related ground failure, including liquefaction
 - o Landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse
- Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Methodology

The analysis evaluates the potential for the project, as described in Chapter 2, Project Description, to interact with local geologic and soil conditions, as well as paleontological resources on the VEGA 6 project site. A Geotechnical Report prepared by Landmark Consultants, Inc. (Appendix G of this EIR). The information obtained from the geotechnical report was reviewed and summarized to present the existing geologic and soil conditions on the VEGA 6 project site. This analysis considers whether these conditions would result in an exceedance of one or more of the applied significance criteria as identified above.

Impact Analysis

Impact 3.6-1 Would the project directly or indirectly cause potential substantive adverse effects, including risk of loss, injury, or death involving:

Rupture of a known earthquake fault, as delineated on the most recent AP Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault; (Refer to Division of Mines and Geology Special Publication 42)?

VEGA 6

As previously discussed above, the VEGA 6 project site is located in a seismically active region with several mapped faults of the San Andreas Fault System in the project site vicinity. As shown in Figure 3.6-2, the VEGA 6 project site is not located on an active fault. Furthermore, no portion of the VEGA 6 project site is within or near a designated APEHA zone, and therefore, the potential for ground rupture to occur within the VEGA 6 project site is considered unlikely. As such, the probability of surface fault rupture within the VEGA 6 project site during construction and operation is considered low and the project would not increase or exacerbate existing hazards related to fault rupture. The proposed VEGA 6 project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a major fault as delineated on the most recent Alquist-Priolo Fault Zoning map. This impact would be less than significant.

Ramon Substation Expansion

As previously described, based on the review of current Earthquake Fault Zone maps, the Ramon Substation expansion area is not located within an Alquist-Priolo Earthquake Fault Zone (CGS 2023). The Ramon Substation expansion area is approximately 1.3 miles south of the San Andreas Fault zone. Because the expansion area is not within 0.5-mile of the fault zone, the potential for ground rupture to occur within the expansion area is considered unlikely. As such, the probability of surface fault rupture within the Ramon Substation expansion area during construction and operation is considered low and the proposed expansion would not increase or exacerbate existing hazards related to fault rupture. Impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.6-2 Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:

Strong seismic ground shaking?

VEGA 6

As previously mentioned, the closest mapped fault to the project site is the Superstition Hills fault located approximately 4.5 miles southwest of the VEGA 6 project site. In the event of an earthquake along this fault or another regional fault, seismic hazards related to ground motion could occur in susceptible areas within the project site. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the moment magnitude, and the duration of shaking.

Even with the integration of building standards that are designed to resist the effects of strong ground motion, ground shaking within the project site could cause some structural damage to the facility structures or, at least, cause unsecured objects to fall. During a stronger seismic event, ground shaking could result in structural damage or collapse of electrical distribution facilities. Given the potentially hazardous nature of the project facilities, the potential impact of ground motion during an earthquake is considered a significant impact, as proposed structures, such as the substation and

transmission lines could be damaged. However, the proposed VEGA 6 project would be constructed in accordance with the applicable geotechnical and seismic design standards as well as the site-specific design recommendations in the final geotechnical report per Mitigation Measure GEO-1; and upon operation, the VEGA 6 project would not result in any significant changes related to the risk of seismic hazards on the project site when compared to existing conditions, nor would project operation increase or exacerbate the potential for strong seismic ground shaking to occur. Impacts would be reduced to a level less than significant.

Ramon Substation Expansion

As previously mentioned, the Ramon Substation expansion area is located approximately 1.3 miles south of the San Andreas Fault zone. In the event of an earthquake along this fault or another nearby regional fault, seismic hazards related to ground motion could occur within the expansion area. While the potential for seismically induced ground shaking in the area during operation of the Ramon Substation is unavoidable, the proposed substation expansion would not include any occupied structures that would expose people to significant hazards due to seismic shaking. It is unlikely that the below grade and above-ground components would be damaged by moderate seismic ground shaking. In addition, the Ramon Substation expansion would be designed and constructed in compliance with the CBC, Riverside County Building Code, and other state and local regulations pertaining to earthquake hazards reduction. Additionally, construction and operation of the Ramon Substation expansion would not increase or exacerbate the potential for strong seismic ground shaking to occur. Therefore, the Ramon Substation expansion would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic groundshaking. Impacts are considered less than significant.

Mitigation Measure(s)

VEGA 6

GEO-1 Prepare Geotechnical Report(s) as Part of Final Engineering for the Project and Implement Required Measures. Facility design for all project components shall comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer to be retained by the project applicant. The final geotechnical and/or civil engineering report shall address and make recommendations on the following:

- Site preparation
- Soil bearing capacity
- Appropriate sources and types of fill
- Potential need for soil amendments
- Structural foundations
- Grading practices
- Soil corrosion of concrete and steel
- Erosion/winterization
- Seismic ground shaking

- Liquefaction
- Expansive/unstable soils

In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant. The final geotechnical and/or civil engineering report shall be submitted to Imperial County Public Works Department, Engineering Division for review and approval prior to issuance of building permits.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With implementation of Mitigation Measure GEO-1, potential impacts associated with strong seismic ground shaking would be reduced to a level less than significant with the implementation of recommendations made by a licensed geotechnical engineer in compliance with the CBC prepared as part of a formal geotechnical investigation.

Impact 3.6-3 Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:

Seismic-related ground failure, including liquefaction?

VEGA 6

Based on the exploratory borings from the Geotechnical Report prepared for the VEGA 6 project, the potential for liquefaction at the solar energy facility site is considered to be low due to the high density of the sands at the project site and groundwater being encountered deeper than 40 feet below ground surface (Appendix G of this EIR). Therefore, the potential impact associated with liquefaction is considered less than significant.

Ramon Substation Expansion

According to the County of Riverside's GIS Mapping Portal (Map My County), the Ramon Substation expansion area is located in an area that has moderate susceptibility to liquefaction (RCIT 2023). However, the proposed Ramon Substation expansion would be designed to resist seismic forces in accordance with the criteria contained in the CBC and the Riverside County Building Code. IID would be required to obtain building permits from the County, which would ensure that project plans and specifications comply with the CBC and County seismic design requirements. Therefore, with adherence to the CBC and County seismic design requirements, the Ramon Substation expansion would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.6-4 *Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:*

Landslides?

VEGA 6

The solar energy facility site slopes gently (about 1.5 to 2 percent) to the north-northeast. As stated above, the hazard of landsliding is unlikely due to the regional planar topography. Additionally, no historic landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed during site investigation according to the Geotechnical Report. Based on these factors the potential for a landslide is considered negligible (Appendix G of this EIR). Therefore, the VEGA 6 project would not directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving landslides and no impact would occur.

Ramon Substation Expansion

According to Figure 16, Slope Instability, in the WCVAP, the Ramon Substation expansion area is not mapped in area with susceptibility to seismically induced landslides and rockfalls (County of Riverside 2021). Additionally, the expansion area is relatively flat and does not contain any slopes, the Ramon Substation expansion area would not be prone to landslides. Accordingly, impacts due to landslide hazards would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.6-5 *Would the project result in substantial soil erosion or the loss of topsoil?*

VEGA 6

The proposed VEGA 6 project would require site grading and construction that would expose the project site to erosive forces by water for extended periods of time. Construction activities would involve grading of the VEGA 6 project site to establish access roads and pads for electrical equipment, trenching for underground electrical collection lines, and the installation of solar equipment and security fencing which could result in increased erosion and sedimentation to surface waters. Construction could also produce sediment-laden stormwater runoff (nonpoint source pollution), a



major contributor to the degradation of water quality. If precautions are not taken to contain contaminants, construction-related erosion impacts are considered a significant impact.

Since the proposed VEGA 6 project would disturb at least 1 acre of land during construction, it would be required to obtain a Construction General Permit from the California State Water Resources Control Board (State Water Board) consistent with Imperial County's General Permit (No. CA000004) and to comply with its conditions and requirements, which are designed to minimize potential erosion issues. Further, the project would be consistent with Section 93101.00 of the Imperial County Municipal Code, which establishes the Stormwater Control Ordinance and ensures compliance with the County's NPDES permit (County of Imperial 2015a). Compliance with the NPDES permit would require the project to implement applicable BMPs to control runoff and include erosion and sediment control practices.

Furthermore, as provided in Mitigation Measure GEO-1, during final engineering for the VEGA 6 project, a design-level geotechnical study would identify appropriate measures for the project related to soil erosion. The proposed project would also implement Mitigation Measure HYD-1 provided in Section 3.9, Hydrology and Water Quality, potential impacts from erosion during construction activities would be reduced to a level less than significant with the preparation of a SWPPP for sediment and erosion control and implementation of BMPs to reduce erosion from the construction site.

The VEGA 6 project is not expected to result in substantial soil erosion or the loss of topsoil over the long term. The project applicant would be required to implement on-site erosion control measures in accordance with County standards, which require the preparation, review, and approval of a grading plan by the County Engineer. Therefore, with implementation of Mitigation Measure GEO-1 and Mitigation Measure HYD-1 identified in Section 3.9 Hydrology/Water Quality as well as adherence to existing requirements, impacts from construction-related erosion would be reduced to a level less than significant. Impacts related to soil erosion or loss of topsoil are limited to construction impacts. No respective operational impacts would occur.

Ramon Substation Expansion

Soil erosion could result during construction of the proposed Ramon Substation expansion area in association with grading and earthmoving activities. The expansion area would be disturbed by construction activities such as grading and clearing as a part of site preparation. To the extent feasible, site preparation would be planned and designed to minimize the amount of earth movement. During construction, erosion would be controlled in accordance with County standards which include preparation, review and approval of a grading plan by the County Engineer; implementation of a Dust Control Plan; and compliance with the NPDES General Construction Permit and project-specific SWPPP, as outlined in Mitigation Measure RS-HYD-1. Implementation of Mitigation Measure RS-HYD-1 would reduce impacts to a level less than significant.

Mitigation Measure(s)

VEGA 6

No additional mitigation measures beyond Mitigation Measure GEO-1 and Mitigation Measure HYD-1 are required.

Ramon Substation Expansion

No additional mitigation measures beyond Mitigation Measure RS-HYD-1.

Significance after Mitigation

VEGA 6

With implementation of Mitigation Measure GEO-1 and Mitigation Measure HYD-1 in Section 3.9 Hydrology/Water Quality, potential impacts from erosion during construction activities would be reduced to a level less than significant with the preparation of a SWPPP and implementation of BMPs to reduce erosion from the construction site.

Ramon Substation Expansion

With implementation of Mitigation Measure RS-HYD-1 in Section 3.9, Hydrology/Water Quality, potential impacts from erosion during construction activities would be reduced to a level less than significant.

Impact 3.6-6 *Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

VEGA 6

Based on the site conditions and relatively flat topography, landslides, lateral spreading, liquefaction, and subsidence, are considered unlikely. As previously described above, due to the high density of the sands at the VEGA 6 project site and groundwater being encountered deeper than 40 feet below ground surface, the potential for liquefaction at the VEGA 6 project site is considered to be low.

The VEGA 6 project site, including the areas proposed for off-site improvements, do not contain steep slopes or exposed hillsides. Due to the gently sloping nature of the project site, including the areas proposed for off-site improvements, the potential for landslides is low.

In regard to collapse, the cohesive nature of the subsurface soils and the natural density (dense to very dense) of the granular soils, the potential for hydro-collapse of the subsurface soils at the solar energy facility site is considered very low (Appendix G of this EIR).

The Geotechnical Report prepared for the VEGA 6 project determined that the solar energy facility site has varying levels of soil corrosivity. The soil in the northern and southern end of the solar energy facility site is considered moderately corrosive and the soil on the eastern side of the site is considered highly corrosive. As such, screening tests concluded that the soil is considered aggressive enough to initiate and support the corrosion of buried metallic utilities (Appendix G of this EIR).

Implementation of Mitigation Measure GEO-1, which requires the preparation of a design-level geotechnical report, would reduce the potential impacts associated with corrosive soils to a level less than significant.

Ramon Substation Expansion

The Ramon Substation expansion area is relatively flat and does not contain any slopes, therefore, the project site would not be prone to landslides and the potential for lateral spreading to occur on-site is low.

The Ramon Substation expansion area is located in an area that has moderate susceptibility for liquefaction (RCIT 2023). Additionally, the expansion area is located in an area susceptible to land subsidence. These potential impacts are considered significant. However, the Ramon Substation expansion would be designed to resist liquefaction and subsidence in accordance with the criteria

contained in the CBC and the Riverside County Building Code. Therefore, potential significant impacts would be reduced to a level less than significant.

Mitigation Measure(s)

VEGA 6

No additional mitigation measures beyond Mitigation Measure GEO-1 are required.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With implementation of Mitigation Measure GEO-1, potential impacts associated with corrosive soils would be reduced to a level less than significant with the implementation of recommendations made by a licensed geotechnical engineer in compliance with the CBC prepared as part of a formal geotechnical investigation.

Impact 3.6-7 Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

VEGA 6

As stated above, expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may result in unacceptable settlement or heave of structures. According to the Geotechnical Report prepared for the VEGA 6 project, heavy clays, which are highly expansive, exist in the northern $\frac{1}{3}$ of the solar energy facility site. The native surface clays on the solar energy facility site likely exhibit high swell potential. The subsurface soils at the proposed electrical substation and O&M building area are predominately hard fat clay soils which would likely exhibit high swell potential.

Therefore, unless properly mitigated, shrink-swell soils could exert additional pressure on buried structures and electrical connections producing shrinkage cracks that could allow water infiltration and compromise the integrity of backfill material. These conditions could be worsened if structural facilities are constructed directly on expansive soil materials. This potential impact would be significant as structures could be damaged by these types of soils. A site-specific geotechnical investigation would be required at the project site to determine the extent and effect of problematic soils which have been identified during preliminary laboratory screenings of near surface on-site soils. Implementation of Mitigation Measure GEO-1, which requires the preparation of a design-level geotechnical report, would reduce potential impacts associated with expansive soils to a level less than significant.

Ramon Substation Expansion

As previously described, the potential for soil expansion within the Ramon Substation expansion area is considered low. The Ramon Substation expansion would also be designed to resist soil expansion

in accordance with the criteria contained in the CBC and the Riverside County Building Code. Therefore, impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No additional mitigation measures beyond Mitigation Measure GEO-1 are required.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With implementation of Mitigation Measure GEO-1, potential impacts associated with expansive soils would be reduced to a level less than significant with the implementation of recommendations made by a licensed geotechnical engineer in compliance with the CBC prepared as part of a formal geotechnical investigation.

Impact 3.6-8 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

VEGA 6

The proposed VEGA 6 project would not require an operations and maintenance building. The proposed solar facility would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Therefore, no septic or other wastewater disposal systems would be required for the VEGA 6 project and no impact would occur.

Ramon Substation Expansion

The Ramon Substation expansion would be primarily an unmanned substation and would not require a wastewater disposal system. Therefore, no impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.6-9 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

VEGA 6

The Lake Cahuilla Beds have yielded well-preserved subfossil remains of freshwater clams and snails and sparse remains of freshwater fish. The paleontological resources of the Lake Cahuilla Beds are considered significant because of the paleoclimatic and palaeoecological information they can provide, and these deposits are therefore assigned a high paleontological potential. Therefore, the VEGA 6 project site is considered to be paleontologically sensitive with a high potential for paleontological resource discovery. As such, project construction has the potential to unearth and/or potentially destroy previously undiscovered paleontological resources. This potential impact is considered a significant impact. However, implementation of Mitigation Measure GEO-2 would reduce the potential impact on paleontological resources to a level less than significant.

Ramon Substation Expansion

According to the County's GIS Mapping Portal (Map My County) for paleontological sensitivity, the Ramon Substation expansion area is located in an area with low sensitivity for paleontological resources (RCIT 2023). Construction of the Ramon Substation expansion would have a low potential to unearth or potentially destroy previously undiscovered paleontological resources. As such, impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

GEO-2 Paleontological Resources. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the project site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may exist within the project site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

Implementation of Mitigation Measure GEO-2 would reduce the potential impact on paleontological resources to a level less than significant. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find.

3.6.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Decommissioning and restoration of the project site at the end of its use as a solar facility would involve the removal of structures and restoration to prior (pre-solar project) conditions. No geologic or soil impacts associated with the restoration activities would be anticipated, and, therefore, no impact is identified.

No impact is anticipated from restoration activities as the ground disturbance and associated impacts on paleontological resources will have occurred during the construction phase of the project.

Residual

With implementation of Mitigation Measure GEO-1, impacts related to strong seismic ground shaking, expansive soils, and corrosive soils would be reduced to a level less than significant. With implementation of Mitigation Measure GEO-1 and Mitigation Measure HYD-1 in Section 3.9 Hydrology/Water Quality, potential impacts from erosion during construction activities would be reduced to a level less than significant.

Implementation of Mitigation Measure GEO-2 would reduce the potential impact on paleontological resources to a level less than significant. The project would not result in residual significant and unmitigable impacts related to geology and soil resources.

3.7 Greenhouse Gas Emissions

This section includes an overview of existing greenhouse gas emissions (GHG) within the VEGA 6 project area and Ramon Substation expansion area, and identifies applicable laws and regulations related to global climate change. The impact assessment provides an evaluation of potential adverse effects with regards to GHG emissions based on criteria derived from the CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description.

Information contained in this section for the VEGA 6 project is summarized from the *Air Quality and Greenhouse Gas Assessment for the VEGA SES 6 Solar and Battery Storage Project* prepared by ECORP Consulting, Inc. This report is included in Appendix C1 of this EIR. GHG emissions for the proposed Ramon Substation expansion were estimated using CalEEMod, version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. The CalEEMod worksheets generated for the proposed Ramon Substation expansion are contained in Appendix C2 of this EIR.

3.7.1 Existing Conditions

Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHGs), play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change.

Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO₂ and N₂O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 3.7-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contribution to the greenhouse effect.

Table 3.7-1. Greenhouse Gas Descriptions

Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere.
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years.
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years.

Source: Appendix C1 of this EIR

Greenhouse Gas Emissions Inventory

In 2021, CARB released the California GHG inventory covering calendar year 2019 emissions. In 2019, California emitted 418.2 million gross metric tons of CO₂e including from imported electricity. The current inventory covers the years 2000 to 2019 and is summarized in Table 3.7-2. Data sources used to calculate this GHG inventory include California and Federal agencies, international organizations, and industry associations. The calculation methodologies are consistent with guidance from the IPCC. The 2000 emissions level is the sum total of sources from all sectors and categories in the inventory. The inventory is divided into seven broad sectors and categories in the inventory. These sectors include agriculture, commercial and residential, electric power, industrial, transportation, recycling and waste, and high GWP gases.

As shown in Table 3.7-2, combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2018, accounting for approximately 39.7 percent of total GHG emissions in the State (CARB 2021).

Table 3.7-2. California Greenhouse Gas Emissions Inventory 2000 to 2019

Sector	Total 2000 Emissions (MMTCo ₂ e)	Total 2019 Emissions (MMTCo ₂ e)
Agriculture	30.97	31.8
Commercial and Residential	43.95	43.8
Electric Power	104.75	58.8
Industrial	96.18	88.2
Transportation	178.40	166.1

Sector	Total 2000 Emissions (MMTCO ₂ e)	Total 2019 Emissions (MMTCO ₂ e)
Recycling and Waste	7.67	8.9
High GWP Gases	6.28	20.6

Source: CARB 2021

Notes: GWP = global warming potential; MMTCO₂e = million metric tons of CO₂ equivalent

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California.

The California Natural Resources Agency’s Fourth Climate Change Assessment (Fourth Assessment) produced updated climate projections that provide state-of-the-art understanding of different possible climate futures for California. The science is highly certain that California (and the world) will continue to warm and experience greater impacts from climate change in the future. While the IPCC and the National Climate Assessment have released descriptions of scientific consensus on climate change for the world and the U.S., respectively, the Fourth Assessment summarizes the current understanding of climate impacts and adaptation options in California (California Natural Resources Agency 2018). Projected changes in California include:

- **Temperatures:** If GHG emissions continue at current rates then California will experience average daily high temperatures that are warmer than the historical average by:
 - 2.7 Fahrenheit (°F) from 2006 to 2039
 - 5.8°F from 2040 to 2069
 - 8.8°F from 2070 to 2100
- **Wildfire:** One Fourth Assessment model suggests large wildfires (greater than 25,000 acres) could become 50 percent more frequent by the end of century if emissions are not reduced. The model produces more years with extremely high areas burned, even compared to the historically destructive wildfires of 2017 and 2018. By the end of the century, California could experience wildfires that burn up to a maximum of 178 percent more acres per year than current averages.
- **Sea-Level Rise:** If emissions continue at current rates, the Fourth Assessment model results indicate that total sea-level rise by 2100 is expected to be 54 inches, almost twice the rise that would occur if GHG emissions are lowered to reduce risk.
- **Snowpack:** By 2050, the average water supply from snowpack is projected to decline to 2/3 from historical levels. If emissions reductions do not occur, water from snowpack could fall to less than 1/3 of historical levels by 2100.
- **Agriculture:** Agricultural production could face climate-related water shortages of up to 16 percent in certain regions. Regardless of whether California receives more or less annual precipitation in the future, the state will be dryer because hotter conditions will increase the loss of soil moisture (California Natural Resources Agency 2018).

3.7.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

At the federal level, there is currently no overarching law related to climate change or the reduction of GHGs. The U.S. EPA is developing regulations under the CAA to be adopted in the near future, pursuant to the U.S. EPA's authority under the CAA. Foremost amongst recent developments have been the settlement agreements between the U.S. EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries; the U.S. Supreme Court's decision in *Massachusetts v. EPA*; and U.S. EPA's "Endangerment Finding," "Cause or Contribute Finding," and "Mandatory Reporting Rule." On September 20, 2013, the U.S. EPA issued a proposal to limit carbon pollution from new power plants. The U.S. EPA is proposing to set separate standards for natural gas-fired turbines and coal-fired units.

Although periodically debated in Congress, no federal legislation concerning GHG limitations has yet been adopted. In *Coalition for Responsible Regulation, Inc., et al. v. EPA*, the United States Court of Appeals upheld the U.S. EPA's authority to regulate GHG emissions under CAA. Furthermore, under the authority of the CAA, the EPA is beginning to regulate GHG emissions starting with large stationary sources. In 2010, the U.S. EPA set GHG thresholds to define when permits under the New Source Review Prevention of Significant Deterioration standard and Title V Operating Permit programs are required for new and existing industrial facilities. In 2012, U.S. EPA proposed a carbon pollution standard for new power plants.

Corporate Average Fuel Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. EPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.

Fuel efficiency standards for medium-and heavy-duty trucks have been jointly developed by U.S. EPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type (U.S. EPA 2011). In 2012, the U.S. EPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (U.S. EPA 2016).

State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by previous Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality

problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Executive Order S-01-07

This order, signed by Governor Schwarzenegger, sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. CARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Assembly Bill 31 – California Global Warming Solutions Act

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlines measures to meet the 2020 GHG reduction goals. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by the end of 2020.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by Executive Order (EO) B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Senate Bill 100 of 2018

On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the Renewable Portfolio Standard (RPS) goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon free energy sources by the end of 2045.

Renewable Portfolio Standard

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "initial RPS"), the goals have been accelerated and increased by EOs S-14-08, S-21-09, SB 350, and SB 100.

The RPS is included in CARB's Scoping Plan list of GHG reduction measures to reduce energy sector emissions. It is designed to accelerate the transformation of the electricity sector through such means as investment in the energy transmission infrastructure and systems to allow integration of large quantities of intermittent wind and solar generation. Increased use of renewables would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector.

Senate Bill 350

The RPS program was further accelerated in 2015 with SB 350 which mandated a 50 percent RPS by 2030. SB 350 includes interim annual RPS targets with three-year compliance periods and requires 65 percent of RPS procurement to be derived from long-term contracts of 10 or more years.

Climate Change Scoping Plan

The Scoping Plan released by CARB in 2008 outlined the state's strategy to achieve the AB 32 goals. This Scoping Plan, developed by CARB in coordination with the Climate Action Team, proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. It was adopted by CARB at its meeting in December 2008. According to the Scoping Plan, the 2020 target of 427 million MTCO_{2e} requires the reduction of 169 million MTCO_{2e}, or approximately 28.3 percent, from the state's projected 2020 BAU emissions level of 596 million MTCO_{2e}.

However, in August 2011, the Scoping Plan was re-approved by the Board and includes the Final Supplement to the Scoping Plan Functional Equivalent Document. This document includes expanded analysis of project alternatives as well as updates the 2020 emission projections in light of the current economic forecasts. Considering the updated 2020 BAU estimate of 507 million MTCO_{2e}, only a 16 percent reduction below the estimated new BAU levels would be necessary to return to 1990 levels by 2020. The 2011 Scoping Plan expands the list of nine Early Action Measures into a list of 39 Recommended Actions.

In May 2014, CARB developed; in collaboration with the Climate Action Team, the First Update to California's Climate Change Scoping Plan (Update), which shows that California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32. In accordance with the United Nations Framework Convention on Climate Change, CARB is beginning to transition to the use of the AR4's 100-year GWPs in its climate change programs. CARB has recalculated the 1990 GHG emissions level with the AR4 GWPs to be 431 million MTCO_{2e}; therefore, the 2020 GHG emissions limit established in response to AB 32 is now slightly higher than the 427 million MTCO_{2e} in the initial Scoping Plan.

CARB adopted the latest update to the Climate Change Scoping Plan in December 2017. The 2017 Scoping Plan is guided by the EO B-30-15 GHG reduction target of 40 percent below 1990 levels by 2030. The 2017 Scoping Plan builds upon the framework established by the initial Scoping Plan and the First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation,

continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources (CARB 2017).

The majority of the Scoping Plan's GHG reduction strategies are directed at the two sectors with the largest GHG emissions contributions: transportation and electricity generation. The GHG reduction strategies for these sectors involve statutory mandates affecting vehicle or fuel manufacture, public transit, and public utilities. The reduction strategies employed by CARB are designed to reduce emissions from existing sources as well as future sources.

Senate Bill 97

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" by July 1, 2009, and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010.

On December 30, 2009, the Natural Resources Agency adopted amendments to the CEQA Guidelines in the CCR. The amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other GHG reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. In addition, consideration of several qualitative factors may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. The Guidelines do not set or dictate specific thresholds of significance.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix G of the CEQA Guidelines.
- The Guidelines are clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- The Guidelines promote the advantages of analyzing GHG impacts on an institutional, programmatic level, and, therefore, approve tiering of environmental analyses and highlights some benefits of such an approach.
- EIRs must specifically consider a project's energy use and energy efficiency potential, pursuant to Appendix F of the CEQA Guidelines.

Senate Bill 375 – Regional Emissions Targets

SB 375 requires that regions within the state which have a metropolitan planning organization (MPO) must adopt a sustainable communities' strategy as part of their RTPs. The strategy must be designed to achieve certain goals for the reduction of GHG emissions. The bill finds that "it will be necessary to achieve significant additional GHG reductions from changed land use patterns and improved transportation. Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 provides that new CEQA provisions be enacted to encourage developers to submit applications and local governments to make land use decisions that will help the state achieve its goals under AB 32," and that "current planning models and analytical techniques used for making transportation infrastructure decisions and for air quality planning should be able to assess the effects of policy choices, such as residential development patterns, expanded transit service and accessibility, the walkability of communities, and the use of economic incentives and disincentives."

Regional

Southern California Association of Governments – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The SCAG is the designated MPO for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region's "Clearinghouse," collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

In September 2020, SCAG adopted the 2020-2045 RTP/SCS. The RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the NAAQS as set forth by the federal CAA (see Section 3.3, Air Quality, of this EIR). The following SCAG goal is applicable to the project:

- Reduce greenhouse gas emissions and improve air quality

As a solar generation facility, the proposed project would improve air quality by reducing the use of fossil fuels in energy production.

Local

County of Imperial

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the CEQA Guidelines to provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts. Formal CEQA thresholds for lead agencies must always be established through a public hearing process. Imperial County has not established formal quantitative or qualitative thresholds through a public rulemaking process, but CEQA permits the lead agency to establish a project-specific threshold of significance if backed by substantial evidence, until such time as a formal threshold is approved.

County of Riverside Climate Action Plan

The County of Riverside adopted the 2019 Climate Action Plan (CAP) Update on December 17, 2019. The 2019 CAP Update considers the previous GHG reduction targets identified in the 2015 CAP and refines the County's efforts to meet GHG reduction strategies in 2035 and 2050 and proposes new targets that are consistent with updates in State climate change regulations in order to meet the requirements of SB 32.

The 2019 CAP Update establishes a framework under which future projects would be designed for the purposes of reducing GHG emissions. Although the 2019 CAP Update is designed as a standalone GHG policy document, it would be utilized to provide a more comprehensive and detailed framework for land-based policy decisions to reduce GHG emissions from existing and future development. Any future projects proposed pursuant to the 2019 CAP Update would be developed in accordance with General Plan Policies for energy conservation while maximizing efficient use of resources, maintaining a high quality of life, enhancing job opportunities, promoting sustainability, and facilitating access to transportation facilities.

The 2019 CAP Update includes an update to the County's GHG inventory for the year 2017 and sets a target to reduce communitywide GHG emissions by 16.3 percent by 2030. GHG reduction measures prescribed in the 2019 CAP Update build upon those adopted under the County's 2015 CAP to ensure that the County meets the reduction targets established pursuant to SB 32.

The CAP Update provides a flexible way of demonstrating GHG reductions consistent with the CAP through the use of screening tables. The screening tables included in the CAP Update provide a menu of options for energy efficiency, renewable energy, water conservation measures, and additional measures that provide predictable GHG reductions. Each option within the screening tables includes point values based upon the GHG reduction that each measure can achieve relative to a development project. Projects that achieve at least 100 points from the screening tables are determined to have provided a fair-share contribution of GHG reductions and, therefore, are considered consistent with the County of Riverside CAP Update (County of Riverside 2019).

3.7.3 Impacts Analysis

This section presents the methodology used for the evaluation, provides the significance criteria used for considering project impacts related to GHGs, provides an impact evaluation, and identifies feasible mitigation measures to avoid or minimize potential impacts, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to GHG emissions are considered significant if any of the following occur:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of GHG emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting

from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

1. Quantify greenhouse gas emissions resulting from a project; and/or
2. Rely on a qualitative analysis or performance based standards.

A lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

VEGA 6

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT SIGNIFICANCE THRESHOLD

The ICAPCD has not adopted a GHG significance threshold. As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7(c)). Thus, in the absence of any GHG emissions significance thresholds, project GHG emissions are compared to the Mojave Desert Air Quality Management District's (MDAQMD) numeric threshold of 100,000 metric tons of CO_{2e} annually. While MDAQMD's significance threshold is not binding on the ICAPCD or County of Imperial, they are instructive for comparison purposes. The MDAQMD's significance threshold is appropriate because it was formulated based on similar geography and climate patterns as found in Imperial County. Therefore, the 100,000-metric ton of CO_{2e} threshold is appropriate for this analysis.

Ramon Substation Expansion

COUNTY OF RIVERSIDE CLIMATE ACTION PLAN

The County of Riverside 2019 CAP Update aims to reduce GHG emissions from development projects under County jurisdiction. The CAP Update builds on state and regional policies aimed at reducing GHG emissions consistent with the SB 32 2030 GHG reduction target and statewide post-2030 reduction goals. The CAP Update identifies a two-step approach in evaluating GHG emissions. First,

a screening threshold of 3,000 MTCO₂e/year is used to determine if additional analysis is required. Projects that do not exceed the 3,000 MTCO₂e/year screening threshold are considered to have a less than significant impact. Projects that exceed the 3,000 MTCO₂e/year screening threshold will be required to either:

1. Demonstrate and achieve a 25 percent reduction minimum of GHG emissions from a 2011-year level of efficiency compared to the mitigated project buildout year, or
2. Demonstrate at least 100 points (equivalent to an approximate 15 percent reduction in GHG emissions) through the CAP Screening Tables.

Projects that achieve at least 100 points from the screening tables are determined to have provided a fair-share contribution of GHG reductions and, therefore, are considered consistent with the County of Riverside CAP Update. As such, projects that achieve a total of 100 points or more are considered to have a less than significant individual and cumulative impact on GHG emissions.

Methodology

VEGA 6

The project-related direct and indirect emissions of GHGs were estimated using the similar methods for quantification of criteria air pollutants, as described in Section 3.3 Air Quality. Emissions were estimated using existing conditions, project construction and operations information, as well as a combination of emission factors from various sources. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. The CalEEMod worksheets generated for the VEGA 6 project are contained in the Air Quality and Greenhouse Gas Assessment prepared by ECORP Consulting, Inc. (Appendix C1 of this EIR).

Ramon Substation Expansion

Emissions were estimated using existing conditions, project construction and operations information, as well as a combination of emission factors from various sources. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2020.4.0. The CalEEMod worksheets generated for the proposed Ramon Substation expansion are contained in Appendix C2 of this EIR.

Impact Analysis

Impact 3.7-1 Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

VEGA 6

Construction and operation of the VEGA 6 project would result in a relatively small amount of GHG emissions. The VEGA 6 project would generate GHG emissions during construction and routine operational activities at the VEGA 6 project site.

Construction. During construction, GHG emissions would be generated from the operation of off-road equipment, haul-truck trips, and on-road worker vehicle trips. Table 3.7-3 shows the VEGA 6 project's construction-related GHG emissions. As previously described above, in the absence of an

established threshold from the ICAPCD, construction emissions were compared to MDAQMD’s significance threshold of 100,000 metric tons of CO₂e per year. As shown in Table 3.7-3, construction of the VEGA 6 project (solar energy facility, BESS, and gen-tie line) would result in the generation of approximately 1,228 metric tons of CO₂e/year, which is below the significance threshold of 100,000 metric tons of CO₂e/year. This impact would be less than significant.

Table 3.7-3. VEGA 6 Project Construction-Related Greenhouse Gas Emissions

Emissions Source	CO ₂ e (Metric Tons/Year)
Total VEGA 6 Project Construction with Gen-Tie Line	1,228
<i>MDAQMD Significance Threshold</i>	<i>100,000</i>
Exceed Significance Threshold?	No

Source: Appendix C1 of this EIR

Operation. Once the VEGA 6 project is constructed and operational, the proposed project would have no major stationary emission sources and would require minimal vehicular trips. Operation of the VEGA 6 project would result in an increase in GHG emissions solely associated with motor vehicle trips.

As shown in Table 3.7-4, the VEGA 6 project’s operational-generated GHG emissions of 2.45 metric tons of CO₂e /year would not exceed the MDAQMD’s threshold of 100,000 metric tons of CO₂e/year. This impact would be less than significant.

Table 3.7-4. VEGA 6 Project Operation-Related Greenhouse Gas Emissions

Emission Source	CO ₂ e (Metric Tons/Year)
Area Source	0
Energy	0
Mobile	2.45
Waste	0
Water	0
Total	2.45
<i>MDAQMD Significance Threshold</i>	<i>100,000</i>
Exceed Significance Threshold?	No

Source: Appendix C1 of this EIR

Ramon Substation Expansion

Construction. During construction, GHG emissions would be generated from the operation of off-road equipment, haul-truck trips, and on-road worker vehicle trips. Table 3.7-5 shows the construction-related GHG emissions generated by the proposed Ramon Substation expansion. As shown in Table 3.7-5, construction of the proposed Ramon Substation expansion would result in the generation of approximately 214 metric tons of CO₂e/year. According to SCAQMD methodology, GHG emissions from construction are to be analyzed over the 30-year lifetime of the project. A 30-year amortization of construction emissions would be approximately 7.1 MTCO₂e per year, which is below the County of Riverside’s screening threshold of 3,000 metric tons of CO₂e/year. This impact would be less than significant.



Operation. Once the proposed Ramon Substation expansion is constructed and operational, there would be no major stationary emission sources. Furthermore, the proposed Ramon Substation expansion would not require any long-term employees during operations. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the proposed expansion area. The proposed Ramon Substation expansion would not generate GHG emissions during operations and no impact would occur.

Table 3.7-5. Ramon Substation Expansion Construction-Related Greenhouse Gas Emissions

Construction Phase	CO ₂ e (Metric Tons/Year)
Site Preparation	9
Grading	11
Structural Facilities	180
Paving	14
Total	214
Amortized Construction-Related GHG Emissions	7.1
<i>County of Riverside Screening Threshold</i>	<i>3,000</i>
Exceed Screening Threshold?	No

Source: Appendix C2

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.7-2 Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

VEGA 6

As discussed in Impact 3.7-1, the proposed VEGA 6 project would generate a relatively small amount of GHG emissions during project construction and its operational lifetime. The project-generated GHG emissions would not exceed the MDAQMD significance threshold of 100,000 metric tons of CO₂e/year, which was prepared with the purpose of complying with statewide GHG-reduction efforts. While the VEGA 6 project would emit some GHG emissions during construction and a very small amount during operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions, a key environmental benefit. Scoping Plan Measure E-3, Renewable Portfolio Standard, of the Climate Change Scoping Plan requires that all investor-owned utility companies generate 60 percent of their energy demand from renewable sources by the year 2030. Therefore, the short-term minor generation of GHG emissions during construction, which is necessary to create this new, low-GHG emitting power-generating facility, as well as the negligible amount generated during

ongoing maintenance operations, would be more than offset by GHG emission reductions associated with solar-generated energy during operation.

Increasing sources of solar energy is one of the measures identified under the Scoping Plan to reduce statewide GHG emissions. The proposed VEGA 6 project would reduce GHG emissions in a manner consistent with SB 32 and other California GHG-reducing legislation by creating a new source of solar power to replace the current use of fossil-fuel power and reduce GHG emissions power generation and use. Furthermore, the proposed VEGA 6 project would contribute to the continued reduction of GHG emissions in the interconnected California and western U.S. electricity systems, as the energy produced by the project would displace GHG emissions that would otherwise be produced by existing business-as-usual power generation resources (including natural gas, coal, arid renewable combustion resources).

The VEGA 6 project would generate a maximum of 80 MW of electricity at any one time. Table 3.7-5 shows the emissions that would potentially be displaced by the proposed VEGA 6 project. Note that this estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the project's operations, and it similarly does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources. In addition, this estimate only includes the displacement of that portion of the California market that comes from fossil fuels and does not include the approximate 50 percent of the California electricity generated by non-combustion sources (wind, solar, nuclear, hydro-electric). As shown in Table 3.7-5, the VEGA 6 project would potentially displace approximately 42,576 metric tons of CO_{2e} per year, and approximately 1,277,277 metric tons of CO_{2e} over the course of 30 years.

Implementation of the proposed VEGA 6 project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHG, and this is considered a less than significant impact.

Table 3.7-6. Proposed VEGA 6 Project Displaced GHG Emissions

	Emissions (Metric Tons)				
	CO ₂	CH ₄	N ₂ O	CO _{2e}	
Emissions Displaced Annually (Metric Tons)					
Displaced Natural Gas-Source Emissions	38,068	0.00	0.00	38,068	
Displaced Coal-Source Emissions	4,500	0.03	0.02	4,508	
Total	42,568	0.03	0.02	42,576	
Emissions Displaced over 30 Years (Metric Tons)					
Total		1,277,047	0.89	0.67	1,277,277

Source: Appendix C1 of this EIR

Notes: In order to provide a conservative analysis, the proposed VEGA 6 project is assumed to generate electricity 25 percent of the time available (2,190 hours annually). Heat Rate indicates the energy generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with higher heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. The average heat rate of power plants types are as follows:

***Steam Boiler fueled by coal: 10,800 heat rate **Steam Boiler fueled by natural gas: 10,200 heat rate **Gas Turbine: 10,100 heat rate **Combined natural gas Boiler and Turbine: 7,640 heat rate.*

By omitting steam boilers fueled by coal since so little of California's energy is derived from coal, the average heat rate = 9,313 [(10,100 + 10,200 + 7,640) ÷ 3 = 9,313]. 100 MW (219,000,000 annual kWh) x 9,313 heat rate = 2,039,547,000,000 Btu displaced from fossil fuel production. Fossil fuel-based energy consumption in California is predominately derived from natural gas (37.06 percent). Coal constitutes 2.74 percent of all fossil fuel-based energy. Therefore, 865,175,837,400 of the displaced Btu is displaced natural gas consumption and 55,883,587,800 of the displaced Btu is displaced coal. The heat content of coal is assumed at 24 million Btu per ton of coal burned. At a rate of 24 million Btu per ton of coal burned, the Project would displace 2,328 tons of burned coal annually.

Ramon Substation Expansion

As discussed above, the estimated construction GHG emissions from the proposed Ramon Substation expansion are below the County of Riverside’s screening threshold of 3,000 metric tons of CO₂e/year. Also, the proposed Ramon Substation expansion would not otherwise result in the generation of GHG emissions as a result of operational activities. Consequently, implementation of the proposed Ramon Substation expansion would not conflict with the County of Riverside’s CAP and would not hinder the state’s ability to achieve SB 32’s goal of achieving a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. Implementation of the proposed Ramon Substation expansion would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHG, and this is considered a less than significant impact.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.7.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Similar to construction activities, decommissioning and restoration would result in GHG emissions below allowable thresholds.

Residual

The proposed project’s GHG emissions would result in a less than significant impact. Project operation would generally be consistent with statewide GHG emission goals and policies including SB 32. Project consistency with applicable plans, policies, and regulations adopted to reduce GHG emissions would ensure that the project would not result in any residual significant and unavoidable impacts with regards to global climate change.

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3.8 Hazards and Hazardous Materials

Information contained in this section for the VEGA 6 project is summarized from the *Phase I Environmental Site Assessment Report for the VEGA 6 Solar Site* (Phase I ESA) prepared by GS Lyon Consultants, Inc. The Phase I ESA was used to assess the potential hazards and hazardous materials found on-site or near the VEGA 6 project site. This report is included in Appendix H of this EIR. Additionally, supporting information in this section is summarized from review of data from Envirostor, GeoTracker, and relevant Imperial County plans to present the existing conditions, in addition to identifying potential environmental impacts. For the Ramon Substation expansion area, the analysis relied on a review of DTSC's EnviroStor database, SWRCB's Geotracker database, and relevant Riverside County plans.

3.8.1 Existing Conditions

VEGA 6

The solar energy facility site is located within unincorporated Imperial County and consists of approximately 320 acres of privately-owned vacant desert land. The solar energy facility site has been vacant desert land since prior to 1937. Minor surface mining for clay and sandy soils has occurred in the southern and northwestern portions of the solar energy facility site. The solar energy facility site is bound by undeveloped Open Space/BLM land immediately to the west and south, and active agricultural land to the north and east. A citrus orchard is located to the east and farm fields are located to the north.

The proposed project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the BLM.

VEGA 6 Records Review

The Phase I ESA includes a review of historic aerial photographs, historic topographic maps, governmental regulatory databases, and other regulatory and agency databases to evaluate the potentially adverse environmental conditions resulting from previous uses at the VEGA 6 project site.

REGULATORY DATABASE REVIEW

GS Lyon Consultants contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut which queries and maintains comprehensive environmental databases and historical information, including proprietary databases, aerial photography, topographic maps, Sanborn Maps, and city directories to generate a compilation of Federal, State, and Tribal regulatory lists containing information regarding hazardous materials occurrences on or within the prescribed radii of the American Society of Testing Materials (ASTM) E1527-13. The search of each database was conducted using the approximate minimum search distances from the project site defined by the ASTM 1527-13 Standard. The purpose of the records review is to obtain and review reasonably ascertainable records that will help identify recognized environmental conditions (RECs) or historical recognized environmental conditions (HRECs) in connection with the project site. The full results of the background review are presented in the Phase I ESA (Appendix H of this EIR). The following summarizes the sites that were identified during the regulatory database review.

FEDERAL RESOURCE RECOVERY ACT LIST

The Federal Resource Conservation Act (RCRA) Notifiers List was reviewed to determine if RCRA treatment, storage, or disposal sites are located within 1 mile of the VEGA 6 project site. The RCRA Correction Action Sites List (CORRACTS) is maintained for risk sites which are undergoing a “correction action”. A corrective action order is issued when there has been a release of hazardous waste constituents into the environment from a RCRA facility.

The RCRA and RCRA CORRACTS database searches identified one RCRA CORRACTS site within ½ mile of the VEGA 6 project site:

- The Laidlaw Environmental facility (currently operated by Clean Harbors) located at 5295 South Garvey Road is located approximately 2 miles northwest of the solar energy facility site, but a portion of the proposed gen-tie route runs along the southern boundary of the Clean Harbors facility.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL SITE MITIGATION AND BROWNFIELDS REUSE PROGRAM'S ENVIROSTOR DATABASE

The Department of Toxic Substances Control's (DTSC) Site Mitigation and Brownfields Reuse Program's EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.

The EnviroStor database search identified one risk site within 1 mile of the VEGA 6 project site as described below:

- The Laidlaw Environmental facility

Because of the distance of the facility from the VEGA 6 project site, the environmental risk to the project site is considered very low (Appendix H of this EIR).

STATE AND TRIBAL UNDERGROUND AND ABOVEGROUND STORAGE TANK SITES

The California State Water Resource Control Board (SWRCB) underground storage tank (UST) and above ground storage tank (AST) inventory list was reviewed to determine if any UAST's are located on or adjacent to the VEGA 6 project site.

One AST site was identified within ¼ mile of the VEGA 6 project site as described below:

- Imperial Farming, located at 5253 Garvey Road is listed as having an AST. No information was provided concerning the type of material stored or any reported leaks or spills.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

The EnviroStor database and the GeoTracker database were queried for environmental data in September 2020. No reported cases were found on the VEGA 6 project site. No risk sites were located within ½ mile of the VEGA 6 project site.

Additionally, the DTSC Imperial Certified Unified Program Agencies (CUPA) office was contacted for a records search of the VEGA 6 project site. The DTSC indicated that records are filed per address, and with no known address associated with the VEGA 6 project site, no records were found associated with the VEGA 6 project site.

HISTORICAL USE RECORDS

ASTM E1527-13 requires the environmental professional to identify all obvious uses of the property from the present back to the project site's first developed use or 1940, whichever is earliest. To identify RECs in connection with the project site, standard historical sources are reviewed including aerial photographs, fire insurance maps, property tax files, land title records, topographic maps, city directories, telephone directories, building department records, and zoning/land use records.

The Phase I ESA indicated that no past ownership or easements would indicate environmentally hazardous uses at the site and no Sanborn Fire Insurance Maps were available for the VEGA 6 project site.

Aerial photographs obtained from EDR dating back to 1947, IID archives dating back to 1949, and Google Earth aerial photographs dating back to 1996 were reviewed for historical development at the project site.

- From 1937 to 1953, aerial photographs shows the solar energy facility site and gen-tie line route as vacant desert land.
- The 1976 aerial photograph shows the solar energy facility site and gen-tie route as being vacant desert lands. Surrounding properties were also vacant desert lands except for an orchard to the east of the site and along the proposed route for the gen-tie line.
- The 1986 aerial photograph shows the solar energy facility site as being dominantly vacant desert land. There appears to be an area in the southeast corner of the solar energy facility site that has been mined for sand material and in the northwest corner where clay material has been mind. Orchards are present to the east of the solar energy facility site and along the east side of the gen-tie line route. The Laidlaw Environmental (Clean Harbors) facility has been developed to the north of the proposed gen-tie line.
- By 2003 the aerial photographs showed additional surface mining of sand soils in the southern portion of the solar energy facility site and the 2012 and 2016 aerial photographs were similar with additional surface mining in the east-central portion of the solar energy facility site.

Based on a review of historical information, the solar energy facility site has been vacant desert land since prior to 1937. Minor surface mining for clay and sandy soils has occurred in the southern and northwestern portions of the solar energy facility site.

Ramon Substation Expansion

The Ramon Substation expansion area is located within unincorporated Riverside County and consists of approximately 4 acres of vacant and undeveloped land.

Ramon Substation Expansion Database Records Review

Based on a review of DTSC's EnviroStor database in October 2023, no hazardous material sites are located within a 1-mile radius of the Ramon Substation expansion area (DTSC 2023). A review of DTSC's Cortese List in October 2023 did not identify the Ramon Substation expansion area as a hazardous waste and substances site.

Based on a review of the Geotracker database in October 2023, no hazardous material sites are associated with the Ramon Substation expansion area. However, there are several LUST clean-up sites within 2.5 miles of the of the expansion area. All LUST clean-up sites are located east of the expansion area and are marked as complete/case closed for their clean-up statuses (SWRCB 2023).

Site Reconnaissance

A site reconnaissance of the VEGA 6 project site was performed on September 5, 2020. The site visit consisted of a walking the perimeter of the VEGA 6 project site and randomly crossing the VEGA 6 project site. The reconnaissance included visual observations of surficial conditions at the VEGA 6 project site and observation of adjoining properties to the extent that they were visible from public areas. The site reconnaissance was limited to visual and/or physical observation of the exterior and interior of the VEGA 6 project site and its improvements, the current uses of the property and adjoining properties, and the current condition of the property. The site visit evaluated the VEGA 6 project site and adjoining properties for potential hazardous materials/waste and petroleum product use, storage, disposal, or accidental release, include the following: presence of tank and drum storage; mechanical or electrical equipment likely to contain liquids; evidence of soil or pavement staining or stressed vegetation; ponds, pits, lagoons, or sumps; suspicious odors; fill and depressions; or any other condition indicative of potential contamination. The site reconnaissance did not observe any of these conditions on the VEGA 6 project site.

Asbestos Containing Materials and Lead-Based Paint

VEGA 6

The potential for asbestos containing materials (ACM) and lead-based paint residues existing at the VEGA 6 project site is considered very low due to the lack of structures on the project site.

Ramon Substation Expansion

The potential for ACM and lead-based paint residues existing at the Ramon Substation expansion area is considered very low due to the lack of structures on-site.

Pesticides

VEGA 6

The VEGA 6 project site has not been in agricultural use. Therefore, the likelihood of residues of currently available pesticides and currently banned pesticides such as DDT/DDE existing on the VEGA 6 project site is very low.

Ramon Substation Expansion

The Ramon Substation expansion area has not been previously used for agricultural purposes. Therefore, the likelihood of residues of currently available pesticides and currently banned pesticides such as DDT/DDE existing in the expansion area is very low.

Airports

VEGA 6

The nearest public airport is the Brawley Municipal Airport located approximately 9.8 miles southeast of the VEGA 6 project site. The VEGA 6 project site is outside of the airport compatibility zones of the Brawley Municipal Airport (County of Imperial 1996).

Ramon Substation Expansion Area

The nearest public airport is the Palm Springs International Airport located approximately 7 miles north of the expansion area. The expansion area is located outside of the airport compatibility zones of Palm Springs International Airport (County of Riverside 2005).

Fire Hazard

VEGA 6

According to the California Department of Forestry and Fire Protection (CAL Fire), the VEGA 6 project site is not located within or near a state responsibility area or lands classified as very high severity zones (California Department of Forestry and Fire Protection 2007). The VEGA 6 project site is located within a local responsibility area.

Ramon Substation Expansion Area

The Ramon Substation expansion area is located within the unincorporated area of Riverside County. According to the WCVAP Wildfire Susceptibility Map, the expansion area is not located within an area susceptible to wildfire (County of Riverside 2021).

3.8.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over 5 years, \$1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. The Comprehensive Environmental Response, Compensation, and Liability Act established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified.

Emergency Planning Community Right-to-know Act of 1986 (42 United States Code 11011 et seq.)

The Emergency Planning Community Right-to-Know Act was included under the Superfund Amendments and Reauthorization Act (SARA) law and is commonly referred to as SARA Title III. Emergency Planning Community Right-to-Know was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. These concerns were triggered by the disaster in Bhopal, India, in which more than 2,000 people suffered death or serious injury from the accidental release of methyl isocyanate. To reduce the likelihood of such a disaster in the U.S., Congress imposed requirements on both states and regulated facilities.

Emergency Planning Community Right-to-Know establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and “Community Right-to-Know” reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR 355). The Emergency Planning Community Right-to-Know provisions help increase the public’s knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. In California, SARA Title III is implemented through the California Accidental Release Prevention.

Federal Insecticide, Fungicide, and Rodenticide Act

The objective of Federal Insecticide, Fungicide, and Rodenticide Act is to provide federal control of pesticide distribution, sale, and use. All pesticides used in the U.S. must be registered (licensed) by the EPA. Registration assures that pesticides would be properly labeled and that, if used in accordance with specifications, they would not cause unreasonable harm to the environment. Use of each registered pesticide must be consistent with use directions contained on the label or labeling.

Federal Water Pollution Control Act (Clean Water Act)

The objective of the Federal Water Pollution Control Act, commonly referred to as the CWA, is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. The oil SPCC Program of the CWA specifically seeks to prevent oil discharges from reaching waters of the U.S. or adjoining shorelines. Further, farms are subject to the SPCC rule if they:

- Store, transfer, use, or consume oil or oil products
- Could reasonably be expected to discharge oil to waters of the U.S. or adjoining shorelines. Farms that meet these criteria are subject to the SPCC rule if they meet at least one of the following capacity thresholds:
 - Aboveground oil storage capacity greater than 1,320 gallons
 - Completely buried oil storage capacity greater than 42,000 gallons

However, the following are exemptions to the SPCC rule:

- Completely buried storage tanks subject to all the technical requirements of the underground storage tank regulations
- Containers with a storage capacity less than 55 gallons of oil
- Wastewater treatment facilities
- Permanently closed containers
- Motive power containers (e.g., automotive or truck fuel tanks)

Hazardous Materials Transport Act – Code of Federal Regulations

The Hazardous Materials Transportation Act was published in 1975. Its primary objective is to provide adequate protection against the risks to life and property inherent in the transportation of hazardous material in commerce by improving the regulatory and enforcement authority of the Secretary of

Transportation. A hazardous material, as defined by the Secretary of Transportation is, any “particular quantity or form” of a material that “may pose an unreasonable risk to health and safety or property.”

Occupational Safety and Health Administration

Occupational Safety and Health Administration’s (OSHA) mission is to ensure the safety and health of America’s workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA standards are listed in 29 CFR Part 1910.

The OSHA Process Safety Management of Highly Hazardous Chemicals (29 CFR Part 110.119) is intended to prevent or minimize the consequences of a catastrophic release of toxic, reactive, flammable, or explosive highly hazardous chemicals by regulating their use, storage, manufacturing, and handling. The standard intends to accomplish its goal by requiring a comprehensive management program integrating technologies, procedures, and management practices.

Resource Conservation and Recovery Act

The goal of the Resource Conservation and Recovery Act, a federal statute passed in 1976, is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste as expeditiously as possible. The Hazardous and Solid Waste Amendments of 1984 significantly expanded the scope of RCRA by adding new corrective action requirements, land disposal restrictions, and technical requirements. The corresponding regulations in 40 CFR 260-299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

State

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

The Division of Oil, Gas, and Geothermal Resources was formed in 1915 to address the needs of the state, local governments, and industry by regulating statewide oil and gas activities with uniform laws and regulations. The Division supervises the drilling, operation, maintenance, and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells, preventing damage to: (1) life, health, property, and natural resources; (2) underground and surface waters suitable for irrigation or domestic use; and (3) oil, gas, and geothermal reservoirs. The Division’s programs include: well permitting and testing; safety inspections; oversight of production and injection projects; environmental lease inspections; idle-well testing; inspecting oilfield tanks, pipelines, and sumps; hazardous and orphan well plugging and abandonment contracts; and subsidence monitoring.

California Department of Toxic Substances Control

DTSC regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. Approximately 1,000 scientists, engineers, and specialized support staff are responsible for ensuring that companies and individuals handle, transport, store, treat, dispose of, and clean-up hazardous wastes appropriately. Through these measures, DTSC contributes to greater safety for all Californians, and less hazardous waste reaches the environment.

On January 1, 2003, the Registered Environmental Assessor program joined DTSC. The program certifies environmental experts and specialists as being qualified to perform a number of environmental

assessment activities. Those activities include private site management, Phase I ESAs, risk assessment, and more.

California Division of Occupational Safety and Health

The California Division of Occupational Safety and Health protects workers and the public from safety hazards through its programs and provides consultative assistance to employers. California Division of Occupational Safety and Health issues permits, provides employee training workshops, conducts inspections of facilities, investigates health and safety complaints, and develops and enforces employer health and safety policies and procedures.

California Environmental Protection Agency

California Environmental Protection Agency and the SWRCB establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law.

California Emergency Response Plan

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is managed by the State Office of Emergency Services (OES), which coordinates the responses of other agencies including Cal-EPA, the California Highway Patrol, CDFW, RWQCB, Imperial County Sheriff's Department, ICFD, and the City of Imperial Police Department.

Local

Imperial County General Plan

The Seismic and Public Safety Element identifies goals and policies that will minimize the risks associated with natural and human-made hazards and specify the land use planning procedures that should be implemented to avoid hazardous situations. The purpose of the Seismic and Public Safety Element is to reduce the loss of life, injury, and property damage that might result from disaster or accident. In addition, the Element specifies land use planning procedures that should be implemented to avoid hazardous situations. The policies listed in the Seismic and Public Safety Element are not

applicable to the proposed project, as they address human occupancy development. The proposed project is a solar project and does not propose residential uses.

Imperial County Public Health Department

DTSC was appointed the Certified Unified Program Agency (CUPA) for Imperial County in January 2005. The Unified Program is the consolidation of 6 state environmental programs into one program under the authority of a CUPA. The CUPA inspects businesses or facilities that handle or store hazardous materials, generate hazardous waste, own or operate ASTs or USTs, and comply with the California Accidental Release Prevention Program. The CUPA Program is instrumental in accomplishing this goal through education, community and industry outreach, inspections and enforcement.

County of Imperial Office of Emergency Services

As part of the ICFD, the County OES is mandated by the California Emergency Services Act (Chapter 7, Division 1, Title 2 of Government Code) to serve as the liaison between the State and all the local government in the County. The OES provides centralized emergency management during major disasters, and coordinates emergency operations between various local jurisdictions within the County. The OES has developed several plans, consistent with federal and state policy guidance, to provide the County and participating local jurisdictions and agencies a framework for conducting emergency planning, response, and recovery operations, and handling of hazardous substances.

County of Riverside General Plan

The County of Riverside General Plan includes several policies related to hazards and hazardous materials that are enforced to minimize potential impacts on the County's citizens, property, and economy (County of Riverside 2021).

SAFETY ELEMENT

- **S 5.1** Enforce land use policies and existing criteria related to hazardous materials and waste through ongoing implementation of the programs identified in the County's Hazardous Waste Management Plan (CHWMP).
- **S 5.2** Review all proposed development projects that manufacture, use, or transport hazardous materials for compliance with the CHWMP. Such projects shall provide a buffer zone, to be determined by the County, between the installation and property boundaries sufficient to protect public safety.
- **S 5.3** Require that applications for discretionary development projects that will generate hazardous wastes or use hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.
- **S 5.7** Identify sites that are inappropriate for hazardous material storage, maintenance, use, and disposal facilities due to potential impacts on adjacent land uses and the surrounding natural environment. Prohibit the siting of new or expanded hazardous material facilities on such sites to the extent feasible.
- **S 5.8** Ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.

County of Riverside Emergency Operations Plan

The County's Emergency Operations Plan (EOP) is the jurisdiction's reference tool for coordinating emergencies, whether they be localized events or catastrophic disasters. The EOP serves as the foundation for response and recovery operations for the County, and establishes roles and responsibilities, assigns tasks, and specifies policies and general procedures. The EOP assists with facilitating an effective response to any emergency by providing a platform that encourages collaboration between The County of Riverside Operational Area Emergency Operations Center (EOC), first responders, and support agencies (County of Riverside 2019).

Riverside County Airport Land Use Compatibility Plan

The Riverside County ALUCP was adopted in October 2004 and establishes policies applicable to land use compatibility planning in the vicinity of airports throughout the County containing compatibility criteria and maps for the influence areas of individual airports. The ALUCP establishes safety zones that limit building heights, restrict hazardous materials and fuel tanks, bird-attracting industries, etc., from close proximity to airport runways. The Ramon Substation expansion area is located outside of Palm Springs International Airport's airport influence area (County of Riverside 2005).

3.8.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to hazards and hazardous materials, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to hazards and hazardous materials are considered significant if any of the following occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

Methodology

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description to result in significant impacts related to hazards and hazardous materials on or within the 1-mile buffer zone of the project site. This analysis considers whether these conditions would result in an exceedance of one or more of the applied significance criteria as identified above.

As previously indicated, a Phase I ESA has been prepared for the VEGA 6 project site. For the Ramon Substation expansion area, the analysis relied on a review of DTSC's EnviroStor database and SWRCB's Geotracker database to identify potential hazardous materials that may be found on-site. The information obtained from these sources was reviewed and summarized to present the existing conditions, in addition to identifying potential environmental impacts, based on materials that could result from project construction and operational activities were evaluated qualitatively based on site conditions; expected construction practices; materials, locations, duration of project construction, and related activities. The conceptual site plan for the project was also used to evaluate potential impacts.

Impact Analysis

Impact 3.8-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

VEGA 6

Although considered minimal, it is anticipated that the project will generate the following materials during construction, operation, and long-term maintenance: insulating oil (used for electrical equipment), lubricating oil (used for maintenance vehicles), various solvents/detergents (equipment cleaning), and gasoline (used for maintenance vehicles). These materials have the potential to be released into the environment as a result of natural hazard (i.e., earthquake) related events, or because of human error. However, all materials contained on site will be stored in appropriate containers (not to exceed a 55-gallon drum) protected from environmental conditions, including rain, wind, and direct heat and physical hazards such as vehicle traffic and sources of heat and impact. In addition, if the on-site storage of hazardous materials necessitates at any time during construction and/or operations and long-term maintenance, quantities in excess of 55-gallons, a hazardous material management program (HMMP) would be required. The HMMP developed for the project will include, at a minimum, procedures for:

- Hazardous materials handling, use, and storage
- Emergency response
- Spill control and prevention
- Employee training
- Record keeping and reporting

Spill response plans would be developed prior to project construction and operation or prior to the storage on-site of an excess of 55 gallons of hazardous materials, and personnel would be made aware of the procedures for spill cleanup and the procedures to report a spill. Spill cleanup materials and equipment appropriate to the type and quantity of chemicals and petroleum products expected would be located onsite and personnel shall be made aware of their location.

The small quantities of chemicals to be stored at the project site during construction include equipment and facilities maintenance chemicals. These materials would be stored in their appropriate containers in an enclosed and secured location, such as portable outdoor hazardous materials storage cabinets equipped with secondary containment to prevent contact with rainwater. The portable chemical storage cabinets may be moved to different locations around the project site as construction activity locations shift. The chemical storage area would not be located immediately adjacent to any drainage. Disposal of excess materials and wastes would be performed in accordance with local, state, and federal regulations.

Additionally, hazardous material storage and management will be conducted in accordance with requirements set forth by the ICFD, Imperial County OES, DTSC, and CUPA for storage and handling of hazardous materials. Further, construction activities would occur according to OSHA regulatory requirements; therefore, it is not anticipated that the construction activities for the proposed project would release hazardous emissions or result in the handling of hazardous or acutely hazardous materials, substances, or waste. This could include the release of hazardous emissions, materials, substances, or wastes during operational activities. With the implementation of an HMMP and adherence to requirements set forth by the ICFD, Imperial County OES, DTSC, OSHA regulatory requirements and CUPA would reduce the impact to a level of less than significant.

BATTERY ENERGY STORAGE SYSTEM

In conjunction with the construction of the solar facility, a battery energy storage system will be constructed to store the energy generated by the solar panels. Transportation of hazardous materials relating to the battery system includes electrolyte and graphite and would occur during construction, operation (if replacement of batteries is needed) and decommissioning (removal of the batteries). All of these various materials would be transported and handled in compliance with DTSC regulations. Therefore, likelihood of an accidental release during transport or residual contamination following accidental release is not anticipated.

Lithium-ion batteries used in the storage system contain cobalt oxide, manganese dioxide, nickel oxide, carbon, electrolyte, and polyvinylidene fluoride. Of these chemicals, only electrolyte should be considered hazardous, inflammable and could react dangerously when mixed with water. The U.S. Department of Transportation (DOT) regulates transport of lithium-ion batteries under the DOT's Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180). The HMR apply to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Lithium-ion batteries must conform to all applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water (DOT 2022). Additionally, carbon (as graphite) is flammable and could pose a fire hazard. As further detailed below, fire protection is achieved through project design features, such as monitoring, diagnostics and a fire suppression system. The project would be required to comply with state laws and county ordinance restrictions, which regulate and control hazardous materials handled on site.

Construction wastes would be disposed of in accordance with local, state, and federal regulations, and recycling will be used to the greatest extent possible. In this context, with adherence to requirements set forth by the ICFD, Imperial County OES, DTSC, OSHA regulatory requirements and CUPA, impacts would be less than significant.

Ramon Substation Expansion

Hazardous materials could be released during construction of the Ramon Substation expansion as a result of improper handling, accidental spills or leaks, and/or due to leaking equipment or vehicles and

could result in soil or water contamination. Human exposure to contaminated soil or water can have potential health effects from a variety of factors, including the nature of the contaminant and the degree of exposure. However, the handling, use, transport, storage, and disposal of such materials would be subject to federal, state, and local health and safety requirements. In addition, construction workers who may handle hazardous materials and substances would be required to adhere to OSHA and the California Occupational Safety and Health Administration (Cal/OSHA) health and safety regulations, which provide oversight for the implementation of procedures for handling, using, and disposing of hazardous substances on a construction site. Therefore, with adherence to OSHA requirements in combination with compliance to federal, state, and local safety requirements, impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.8-2 Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

VEGA 6

As described above, project construction would involve limited use of hazardous materials, such as fuels and greases to fuel and service construction equipment, and during operation, routine maintenance of the proposed facility may result in the potential to handle hazardous materials. However, the hazardous materials handled on-site would be limited to small amounts of everyday use cleaners and common chemicals used for maintenance and the applicant will be required to comply with State laws and County Ordinance restrictions, which regulate and control hazardous materials handled on-site. Therefore, a less than significant impact has been identified for this issue area.

Based on the regulatory database review conducted as part of the Phase I ESA report, the project site is not identified on a list of hazardous materials sites. The following two sites were identified within 1 mile and 0.25 mile of the VEGA 6 project site, respectively:

- The Laidlaw Environmental facility (currently operated by Clean Harbors) located at 5295 South Garvey Road is located approximately 2 miles northwest of the solar energy facility site, but a portion of the proposed gen-tie route runs along the southern boundary of the Clean Harbors facility.
- Imperial Farming, located at 5253 Garvey Road is listed as having an AST. No information was provided concerning the type of material stored or any reported leaks or spills.

Due to the distance of the Clean Harbors facility, the Phase I ESA determined the environmental risk to the project site is considered very low. The AST located at 5253 Garvey Road was listed by the SWRCB and noted no information on the type of material stored. No reported leaks or spills were associated with the AST (Appendix H of this EIR). As such, the environmental risk is considered low.

BATTERY ENERGY STORAGE SYSTEM

Protection would be provided as part of the project design by housing the battery units in enclosed structures to provide containment should a fire break out or for potential spills. Any potential fire risk that the traditional lithium-ion cells have will most likely be caused by over-charging or through short circuit due to age. This risk will be mitigated through monitoring and a fire suppression system that includes water and or a suppression agent (e.g., FM-200, Novatech) with smoke detectors, control panel, alarm, piping and nozzles. The fire protection system will be designed by a certified fire protection engineer and installed by a fire protection system contractor licensed in California and in accordance with all relevant building and fire codes in effect in the County at the time of building permit submission. Fire protection systems for battery systems would be designed in accordance with California Fire Code and would take into consideration the recommendations of the National Fire Protection Association (NFPA) 855.

The fire protection plan is anticipated to include a combination of prevention, suppression, and isolation methods and materials. The general approach to fire mitigation at the project site would be prevention of an incident, followed by attempts to isolate and control the incident to the immediately affected equipment, then to suppress any fire with a clean agent so as to reduce damage to uninvolved equipment. Fire suppression agents such as Novec 1230 or FM 2000, or water may be used as a suppressant. In addition, fire prevention methods would be implemented to reduce potential fire risk, including voltage, current, and temperature alarms. Energy storage equipment would comply with Underwriters Laboratory (UL)-95401 and test methods associated with UL-9540A. For lithium-ion batteries storage, a system would be used that would contain the fire event and encourage suppression through cooling, isolation, and containment. Suppressing a lithium-ion (secondary) battery is best accomplished by cooling the burning material. A gaseous fire suppressant agent (e.g., 3M™ Novec™ 1230 Fire Protection Fluid or similar) and an automatic fire extinguishing system with sound and light alarms would be used for lithium-ion batteries.

To mitigate potential hazards, redundant separate methods of failure detection would be implemented. These would include alarms from the Battery Management System (BMS), including voltage, current, and temperature alarms. Detection methods for off gas detection would be implemented, as applicable. These are in addition to other potential protective measures such as ventilation, overcurrent protection, battery controls maintaining batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in accordance with manufacturer guidelines. Remote alarms would be installed for operations personnel as well as emergency response teams in addition to exterior hazard lighting. In addition, an Incidence Response Plan would be implemented. In this context, impacts would be considered less than significant for this impact area.

Ramon Substation Expansion

As previously described in Section 3.8.1, Existing Conditions, the Ramon Substation expansion area is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and that, resultingly, could create a significant hazard to the public or the environment. Hazardous materials could be released during construction of the Ramon Substation expansion as a result of improper handling, accidental spills or leaks, and/or due to leaking equipment or vehicles during construction. However, all hazardous substances would be handled, transported, and/or disposed of in accordance with all federal, state, and local laws. Upon required compliance with these existing regulations, upset and accident conditions involving hazardous substances during construction are not reasonably foreseeable. Operation of the Ramon Substation

expansion would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during project operation. Impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.8-3 Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

VEGA 6

The VEGA 6 project site is not located within 0.25 mile of an existing or proposed school. Therefore, the proposed project would not pose a risk to nearby schools and no impact would occur.

Ramon Substation Expansion

The Ramon Substation expansion area is not located within 0.25 mile of an existing or proposed school. Therefore, the Ramon Substation expansion would not pose a risk to nearby schools and no impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.8-4 Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

VEGA 6

Based on the regulatory database review conducted as part of the Phase I ESA report, the VEGA 6 project site is not identified on a list of hazardous materials sites. Furthermore, based on a review of the Cortese List conducted in May 2022, the VEGA 6 project site is not listed as a hazardous materials site. Therefore, implementation of the proposed project would result in no impact related to the project site being located on a listed hazardous materials site pursuant to Government Code Section 65962.5.

Ramon Substation Expansion

Based on a review of DTSC's EnviroStor database, no hazardous material sites are located within a 1-mile radius of the Ramon Substation expansion area (DTSC 2023). Additionally, based on a review of the Cortese List conducted in October 2023, the expansion area is not listed as a hazardous materials site. Therefore, the proposed Ramon Substation expansion would result in no impact related to the expansion area being located on a listed hazardous materials site pursuant to Government Code Section 65962.5.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.8-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?

VEGA 6

There are no public airports or public use airports located within 2 miles of the VEGA 6 project site. The nearest public airport is the Brawley Municipal Airport located approximately 9.8 miles southeast of the VEGA 6 project site. The project site is located outside of the airport compatibility zones of the Brawley Municipal Airport (County of Imperial 1996). Therefore, implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area and no impact would occur.

Ramon Substation Expansion

There are no public airports located within 2 miles of the Ramon Substation expansion area. The nearest public airport is the Palm Springs International Airport located approximately 7 miles west of the expansion area. The expansion area is located outside of the airport compatibility zones of the Palm Springs International Airport (County of Riverside 2005). Therefore, the Ramon Substation expansion area would not result in a safety hazard or excessive noise for people residing or working in the area and no impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.8-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

VEGA 6

The Imperial County Operational Area Emergency Operations Plan (Imperial County OES 2016) does not identify specific emergency roadway routes as part of their emergency operations plan (EOP).

The applicant for the proposed project will be required, through the Conditions of Approval, to prepare a street improvement plan for the proposed project that will include emergency access points and safe vehicular travel. Additionally, local building codes would be followed to minimize flood, seismic, and fire hazard. Therefore, the proposed project would result in a less than significant impact associated with the possible impediment to emergency response plans or emergency evacuation plans.

Ramon Substation Expansion

Construction of the Ramon Substation expansion would occur within the project site boundary and would not directly encroach within any public roadway or access route utilized for emergency vehicle response. Access to the existing substation is provided by Ramon Road, which is immediately south of the existing substation. During construction, the increased movement of construction vehicles and equipment through the area may result in temporary impacts to surrounding roadways and associated delays in emergency service providers' response times. However, these impacts would be minor and temporary in nature and are not anticipated to result in significant impacts including the impairment or interference of an evacuation in the unlikely event of an emergency. Expansion of the Ramon Substation would not include any activities that would reasonably increase the probability of any localized events or other emergencies. Based on the evaluation above, project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts are considered less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.9-7 Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

VEGA 6

The VEGA 6 project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan (County of Imperial 1997), the potential for a major fire in the unincorporated areas of the County is generally low.

Proposed project facilities would be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health, and safety requirements (e.g., CPUC safety standards). The solar energy facility site would include one primary access driveway, proposed via SR 78 from the north and west, and across the Westside Main Canal, via county roadways (Garvey Road

and Andre Road). Points of ingress/egress would be accessed via locked gates that can be opened by any emergency responders.

Because the proposed project is not located in proximity to an area susceptible to wildland fires, implementation of the proposed project would result in a less than significant impact related to the possible risk to people or structures caused by wildland fires.

Ramon Substation Expansion

The Ramon Substation expansion area is located within the unincorporated area of Riverside County. According to the WCVAP Wildfire Susceptibility Map, the expansion area is not located within an area susceptible to wildfire (County of Riverside 2021). Because operation and maintenance activities must occur in compliance with federal and state-mandated safety standards and these protocols are designed reduce the likelihood of fires, the likelihood of fire hazards associated with electrical failure would be low. Implementation of the Ramon Substation expansion would result in a less than significant impact related to the possible risk to people or structures caused by wildland fires.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.8.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. During decommissioning and restoration of the project site, the applicant or its successor in interest would be responsible for the removal, recycling, and/or disposal of all solar arrays, inverters, transformers and other structures on the project site. The project applicant anticipates using the best available recycling measures at the time of decommissioning. Any potentially hazardous materials located on the site would be disposed of, and/or remediated in compliance with local and state regulations, including DTSC regulations prior to construction of the project. At the end of a lithium-ion module's useful life (typically estimated to be 10 to 20+ years) and final project decommissioning, the batteries would be decommissioned and recycled per manufacturer guidelines. Certain manufacturers allow for the batteries to be returned to the manufacturing facility or a third-party recycling facility where the batteries are disassembled, and certain materials are recovered from the battery for reuse.

The operation of the solar facility would not generate hazardous wastes and therefore, implementation of applicable regulations and mitigation measures identified for construction and operations would ensure restoration of the project site to pre-project conditions during the decommissioning process in a manner that would be less than significant. Furthermore, decommissioning/restoration activities would not result in a potential impact associated with ALUCP consistency (structures would be removed and the site would remain in an undeveloped condition), wildfires (fire protection measures),



or impediment to an emergency plan (the undeveloped condition as restored, would not conflict with emergency plans).

Residual

Adherence to federal, state and local regulations will ensure that impacts related to the transportation of hazardous materials and potential fires would be reduced to levels less than significant. Based on these circumstances, the proposed project would not result in residual significant and unmitigable impacts related to hazards and hazardous materials.

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3.9 Hydrology/Water Quality

This section provides a description of existing water resources within the VEGA 6 project site and Ramon Substation expansion area, and pertinent local, state, and federal plans and policies. Each subsection includes descriptions of existing hydrology/drainage, existing flooding hazards, and the environmental impacts on hydrology and water quality resulting from implementation of the proposed VEGA project and Ramon Substation expansion, and mitigation measures where appropriate. The impact assessment provides an evaluation of potential adverse effects to water quality based on criteria derived from CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description.

3.9.1 Existing Conditions

VEGA 6

Drainage

The VEGA 6 project site is located in the Imperial Valley Planning Area of the Colorado River Basin. The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The Colorado River Basin Region is divided into seven major planning areas on the basis of different economic and hydrologic characteristics (California RWQCB 2019). The VEGA 6 project site is contained within the Brawley Hydrologic Area in the Imperial Hydrologic Unit (HU 723.10). The Imperial Valley is characterized as a closed basin and, therefore, all runoff generated within the watershed discharges into the Salton Sea (California RWQCB 2019).

The VEGA 6 project site and the western portion of the gen-tie transmission line is a part of an alluvial fan system. Alluvial fans occur when stream flow feeds into a system of distributary channels. The alluvial fan drainage system produces ephemeral conditions within the VEGA 6 project site and vicinity following large rain events and contains a network of inactive and active braided channels.

The VEGA 6 project site and the surrounding terrain is generally flat. The VEGA 6 project site is located approximately 0.50-mile west of the Westside Main Canal. The Westside Main Canal divert waters from the All-American Canal located south of the VEGA 6 project site along the U.S.-Mexico border, which brings water from the Colorado River at the Imperial Dam. It then supplies water throughout the Imperial Valley via a network of smaller irrigation channels, which ultimately drain to the Salton Sea.

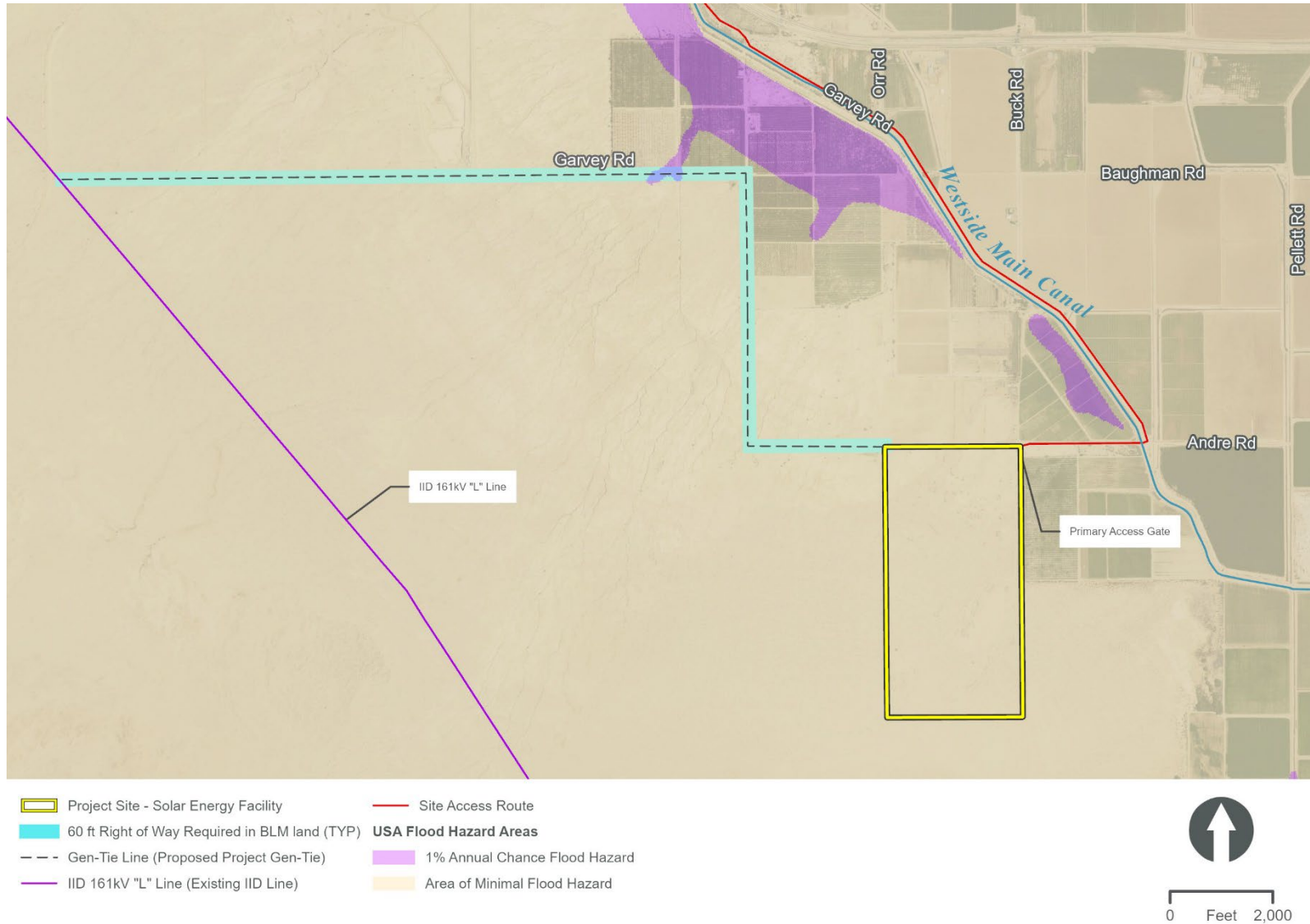
There are several concrete lined lateral canals, unlined irrigation channels, and stormwater drains that either bisect or run parallel to the VEGA 6 project site throughout most of the gen-tie alignment. The channels are primarily used for agriculture, with some being managed by the IID and others being privately owned by farmland operations. (Appendix E of this EIR).

Flooding

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) (Map Number 06025C1000C) (FEMA 2008), the solar energy facility site is located within Zone X (unshaded). The FEMA Zone X (unshaded) designation is an area determined to be outside the 0.2 percent annual chance floodplain. The gen-tie transmission line runs through FEMA Zone A, a special flood hazard zone with 1 percent annual chance of flooding (FEMA 2008).

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Figure 3.9-1. FEMA Flood Zone



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Surface Water Quality

The surface waters of the Imperial Valley depend primarily on the inflow of irrigation water from the Colorado River via the All-American Canal. Excessive salinity concentrations have long been one of the major water quality problems of the Colorado River, a municipal and industrial water source to millions of people, and a source of irrigation water for approximately 700,000 acres of farmland. The heavy salt load in the Colorado River results from both natural and human activities. Land use and water resources are unequivocally linked. A variety of natural and human factors can affect the quality and use of streams, lakes, and rivers. Surface waters may be impacted from a variety of point and non-point discharges. Examples of point sources may include wastewater treatment plants, industrial discharges, or any other type of discharge from a specific location (commonly a large-diameter pipe) into a stream or water body. In contrast, non-point source pollutant sources are generally more diffuse in nature and connected to a cumulative contribution of multiple smaller sources.

Common non-point source contaminants within the VEGA 6 project area may include, but are not limited to: sediment, nutrients (phosphorous and nitrogen), trace metals (e.g., lead, zinc, copper, nickel, iron, cadmium, and mercury), oil and grease, bacteria (e.g., coliform), viruses, pesticides and herbicides, organic matter, and solid debris/litter. Vehicles account for most of the heavy metals, fuel and fuel additives (e.g., benzene), motor oil, lubricants, coolants, rubber, battery acid, and other substances. Nutrients result from excessive fertilizing of agricultural areas, while pesticides and herbicides are widely used in agricultural fields and roadway shoulders for keeping right-of-way (ROW) areas clear of vegetation and pests. Surface waters mostly drain towards the Salton Sea. The Westside Main Canal, along with the New and Alamo Rivers (located north and east of the project area), convey agricultural irrigation drainage, surface runoff, and some treated municipal waste from the Imperial Valley. The flow in the New River also contains agricultural drainage, treated and untreated sewage, and industrial waste discharges from Mexicali, Mexico (California RWQCB 2019).

Based on the 2020-2022 Integrated Report prepared by the Colorado River Basin RWQCB, the surface water features within the Brawley Hydrologic Area include the Imperial Valley Drains (Westside Main Canal) and the Salton Sea (California RWQCB 2022). Specific impairments listed for each of these water bodies (or Category 5) are identified below:

- Imperial Valley Drains: Impaired for ammonia, chlordane, chlorpyrifos, dichlorodiphenyldichloroethylene (DDE), dichlorodiphenyltrichloroethane (DDT), dieldrin, disulfoton, imidacloprid, PCBs, sedimentation/siltation, selenium, toxaphene, and toxicity.
- Salton Sea: Impaired for ammonia, arsenic, chloride, chlorpyrifos, DDE, DDT, enterococcus, low dissolved oxygen, nutrients, salinity, and toxicity (California RWQCB 2022).
- (California RWQCB 2022).

Groundwater Hydrology

The VEGA 6 project site is located within the northwestern part of the Imperial Valley Groundwater Basin. The Imperial Valley Groundwater Basin is bounded on the east by the Sand Hills and on the west by the igneous and metamorphic rocks of the Fish Creek and Coyote Mountains. The northern boundary is the Salton Sea while the southern boundary is the international border with Mexico. The groundwater basin has an area of approximately 1,200,000 acres, or 1,870 square miles. The Basin has not been adjudicated (Appendix K of this EIR).

Groundwater occurs within two major aquifers, separated at depth by a semi-permeable aquitard that averages 60 feet thick and reaches a maximum thickness of 280 feet. The aquifers consist mostly of

alluvial deposits of late Tertiary and Quaternary age that have eroded from the adjacent mountains and filled the valley. The upper aquifer has an average thickness of approximately 200 feet with a maximum thickness of 450 feet. The lower aquifer averages approximately 380 feet thick with a maximum thickness of 1,500 feet (Appendix K of this EIR).

The majority of the Imperial Valley Groundwater Basin area consists of irrigated agriculture (refer to Figure 4 in Appendix K of this EIR). Surface water from the Colorado River provides almost all of the irrigation and municipal water supply, through IID. Ninety-seven percent of IID's 3.1-million-acre-foot entitlement is used to irrigate almost 500,000 acres of farmland (Appendix K of this EIR). The remaining three percent of IID's allocation supplies municipal, commercial, industrial, and rural domestic needs.

Ramon Substation Expansion

The Ramon Substation expansion area is located in the Coachella Valley Planning Area of the Colorado River Basin. The expansion area is located within the Thousand Palms Hydrologic Subarea in the Whitewater Hydrologic Unit. The Upper Whitewater River watershed, approximately 201,200 acres in size, is located within the larger Whitewater River Hydrologic Unit. The major surface water within the watershed includes the Whitewater River and originates within the summit of Mount San Gorgonio in the San Bernardino Mountains. The river travels southeast joining with three other tributaries before ultimately draining into the Salton Sea at the southeastern end of the Coachella Valley (Appendix E2 of this EIR).

Flooding

According to FEMA's FIRM (Map Number 06065C105G) (FEMA 2008), the Ramon Substation expansion area is located within Zone AO. The FEMA Zone AO designation is an area of special flood hazard, with flood depths of 1 to 3 feet.

Surface Water Quality

Based on the 2020-2022 Integrated Report prepared by the Colorado River Basin RWQCB, the Whitewater River is not listed as an impaired water body (California RWQCB 2022).

Groundwater Hydrology

The Ramon Substation expansion area is located within the Coachella Valley Groundwater Basin – Indio Subbasin. Indio Subbasin is located northwest of the Salton Sea and receives low precipitation, averaging about 6 inches per year, and a wide range of temperatures. The Banning fault bounds the subbasin on the north and the semi-permeable rocks of the Indio Hills mark the northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Gorgonio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast. The Indio Subbasin is drained by the Whitewater River and its tributaries. The Whitewater River rarely flows throughout the year and flow in tributaries such as San Gorgonio River is intermittent. Surface flow is southeastward to the Salton Sea. The Colorado River Aqueduct and the Coachella Branch of the All-American Canal convey imported surface water into the Coachella Valley which overlies the subbasin (DWR 2004).

Primary water-bearing materials in the subbasin are unconsolidated late Pleistocene and Holocene alluvial deposits. These deposits consist of older alluvium and the Ocotillo Conglomerate Formation, a thick sequence of poorly bedded coarse sand and gravel. The Ocotillo Conglomerate is greater than 1,000 feet thick in many places and is the primary water-bearing unit in the subbasin. In the upper part of the subbasin, groundwater is unconfined, whereas to the south and southeast groundwater is mostly confined except on the edges of the subbasin where unconfined conditions are found. Depth to groundwater varies widely in the southeast part of the subbasin and some wells historically delivered artesian flow. Confinement begins near Point Happy and continues south to the Salton Sea (DWR 2004).

3.9.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

CLEAN WATER ACT

The U.S. EPA is the lead federal agency responsible for managing water quality. The CWA of 1972 is the primary federal law that governs and authorizes the U.S. EPA and the states to implement activities to control water quality. The various elements of the CWA that address water quality and that are applicable to the project are discussed below. Wetland protection elements administered by the USACE under Section 404 of the CWA, including permits for the discharge of dredged and/or fill material into waters of the United States, are discussed in Section 3.4, Biological Resources.

Under federal law, the U.S. EPA has published water quality regulations under Volume 40 of the CFR. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the U.S. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question; and (2) criteria that protect the designated uses. Section 304(a) requires the U.S. EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. The U.S. EPA is the federal agency with primary authority for implementing regulations adopted under the CWA. The U.S. EPA has delegated the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described below.

Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the U.S. must obtain a water quality certification from the SWRCB in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate.

CWA Section 402 establishes the National Pollution Discharge Elimination System (NPDES) permit program to control point source discharges from industrial, municipal, and other facilities if their discharges go directly to surface waters. The 1987 amendments to the CWA created a new section of the CWA devoted to regulating storm water or nonpoint source discharges (Section 402[p]). The U.S. EPA has granted California primacy in administering and enforcing the provisions of the CWA and the NPDES program through the SWRCB. The SWRCB is responsible for issuing both general and individual permits for discharges from certain activities. At the local and regional levels, general and individual permits are administered by RWQCBs.

CLEAN WATER ACT SECTION 303(D) IMPAIRED WATERS LIST

CWA Section 303(d) requires states to develop lists of water bodies that will not attain water quality standards after implementation of minimum required levels of treatment by point-source dischargers. Section 303(d) requires states to develop a total maximum daily load (TMDL) for each of the listed pollutants and water bodies. A TMDL is the amount of loading that the water body can receive and still be in compliance with applicable water quality objectives and applied beneficial uses. TMDLs can also act as a planning framework for reducing loadings of a specific pollutant from various sources to achieve compliance with water quality objectives. TMDLs prepared by the state must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows links between loading reductions and the attainment of water quality objectives.

NATIONAL FLOOD INSURANCE PROGRAM

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations that limit development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRM) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection covered by the FIRM is established by FEMA, with the minimum level of flood protection for new development determined to be the 1-in-100 (0.01) annual exceedance probability) (i.e., the 100-year flood event).

State

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act, also known as the California Water Code, is California's statutory authority for the protection of water quality. Under this act, the state must adopt water quality policies, plans, and objectives that protect the state's waters. The act sets forth the obligations of the State Water Resources Control Board (SWRCB) and RWQCBs pertaining to the adoption of Water Quality Control Plans and establishment of water quality objectives. Unlike the CWA, which regulates only surface water, the Porter-Cologne Act regulates both surface water and groundwater.

WATER QUALITY CONTROL PLAN FOR THE COLORADO RIVER BASIN

The Water Quality Control Plan for the Colorado River Basin (or Basin Plan) prepared by the Colorado River RWQCB (Region 7) identifies beneficial uses of surface waters within the Colorado River Basin region, establishes quantitative and qualitative water quality objectives for protection of beneficial uses, and establishes policies to guide the implementation of these water quality objectives.

Water bodies that have beneficial uses that may be affected by construction activity and post-construction activity include the Imperial Valley Drains Salton Sea, and the Whitewater River. Table 3.9-1 identifies the designated beneficial uses established for the project site's receiving waters. The following are definitions of the applicable beneficial uses:

- Aquaculture (AQUA) – Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
- Groundwater Recharge (GWR) - Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting salt water intrusion into fresh water aquifers.



- Freshwater Replenishment (FRSH) – Uses of water for natural or artificial maintenance of surface water quantity or quality.
- Industrial Service Supply (IND) – Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization.
- Water Contact Recreation (REC I) – Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.
- Non-contact Water Recreation (REC II) – Uses of water for recreational activities involving proximity to water, but not normally involving contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
- Warm Freshwater Habitat (WARM) – Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
- Wildlife Habitat (WILD) – Uses of water that support terrestrial ecosystems including, but not limited to, the preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
- Preservation of Rare, Threatened, or Endangered Species (RARE) – Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Table 3.9-1. Beneficial Uses of Receiving Waters

Beneficial Uses	Imperial Valley Drains	Salton Sea	Whitewater River
AQUA	--	X	--
FRSH	X	--	X
GWR			X
IND	--	P	--
REC I	X	X	--
REC II	X	X	X
WARM	X	X	X
WILD	X	X	X
RARE	X	X	--

Source: RWQCB 2019

AQUA=aquaculture; FRSH=freshwater replenishment; GRW = Ground water recharge; IND=industrial service supply; P=Potential Uses; RARE=Preservation of Rare, Threatened, or Endangered Species; REC 1= water contact recreation; REC II=non-contact water recreation; WARM=Warm Freshwater Habitat; WILD=Wildlife Habitat; X=existing beneficial uses

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM GENERAL INDUSTRIAL AND CONSTRUCTION PERMITS

The NPDES General Industrial Permit requirements apply to the discharge of stormwater associated with industrial sites. The permit requires implementation of management measures that will achieve the performance standard of the best available technology economically achievable and best conventional pollutant control technology. Under the statute, operators of new facilities must implement industrial BMPs in the projects’ SWPPP and perform monitoring of stormwater discharges and unauthorized non–stormwater discharges.

Construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a Notice of Intent (NOI) to comply with the General Construction Permit. The SWPPP includes a description of BMPs to minimize the discharge of pollutants from the sites during construction. Typical BMPs include temporary soil stabilization measures (e.g., mulching and seeding), storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or stormwater, and using filtering mechanisms at drop inlets to prevent contaminants from entering storm drains. Typical post-construction management practices include street sweeping and cleaning stormwater drain inlet structures. The NOI includes site-specific information and the certification of compliance with the terms of the General Construction Permit.

Local

IMPERIAL COUNTY GENERAL PLAN

The Water Element and the Conservation and Open Space Element of the General Plan contain policies and programs, created to ensure water resources are preserved and protected. Table 3.9-2 identifies the General Plan policies and programs for water quality and flood hazards that are relevant to the VEGA 6 project and summarizes the project’s consistency with the General Plan. While this EIR analyzes the VEGA 6 project’s consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.9-2. Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
<i>Conservation and Open Space Element</i>		
Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	The proposed VEGA 6 project would protect water quality during construction through compliance with Imperial County design and detention requirements and the NPDES General Construction Permit, as well as preparation and implementation of project-specific SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework, design features, and BMPs.



General Plan Policies	Consistency with General Plan	Analysis
<p>Objective 6.3: Protect and improve water quality and quantity for all water bodies in Imperial County.</p>	<p>Consistent</p>	<p>The proposed VEGA 6 project would protect water quality during construction through compliance with the NPDES General Construction Permit, SWPPP, and BMPs. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's drainage plan. The proposed VEGA 6 project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution.</p>
<p>Program: Structural development normally shall be prohibited in the designated floodways. Only structures which comply with specific development standards should be permitted in the floodplain.</p>	<p>Consistent</p>	<p>The VEGA 6 project does not contain a residential component, nor would it place housing or other structures within a 100-year flood hazard area.</p>
<p>Water Element</p>		
<p>Policy: Adoption and implementation of ordinances, policies, and guidelines which assure the safety of County ground and surface waters from toxic or hazardous materials and/or wastes.</p>	<p>Consistent</p>	<p>The VEGA 6 project would preserve ground and surface water quality from hazardous materials and wastes during construction, operation and decommissioning activities. The proposed VEGA 6 project would protect water quality during construction through compliance with NPDES General Construction Permit, SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework and BMPs. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's drainage plan. The proposed VEGA 6 project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. It is anticipated that project decommissioning activities would be subject to similar, or more stringent ground and surface water regulations than those currently required.</p>

General Plan Policies	Consistency with General Plan	Analysis
Program: The County of Imperial shall make every reasonable effort to limit or preclude the contamination or degradation of all groundwater and surface water resources in the County.	Consistent	Mitigation measures will require that the applicant of the VEGA 6 project prepare a site-specific drainage plan and water quality management plan to minimize adverse effects to local water resources.
Program: All development proposals brought before the County of Imperial shall be reviewed for potential adverse effects on water quality and quantity and shall be required to implement appropriate mitigation measures for any significant impacts.	Consistent	See response for Water Element Policy above.

Source: County of Imperial 2016, County of Imperial 1997b

COUNTY OF IMPERIAL LAND USE ORDINANCE, TITLE 9

The County’s Ordinance Code provides specific direction for the protection of water resources. Applicable ordinance requirements are contained in Division 10, Building, Sewer and Grading Regulations, and summarized below.

Chapter 10 – Grading Regulations. Section 91010.02 of the Ordinance Code outlines conditions required for issuance of a Grading Permit. These specific conditions include:

1. If the proposed grading, excavation or earthwork construction is of irrigatable land, said grading will not cause said land to be unfit for agricultural use.
2. The depth of the grading, excavation or earthwork construction will not preclude the use of drain tiles in irrigated lands.
3. The grading, excavation or earthwork construction will not extend below the water table of the immediate area.
4. Where the transition between the grading plane and adjacent ground has a slope less than the ratio of 1.5 feet on the horizontal plane to 1 foot on the vertical plane, the plans and specifications will provide for adequate safety precautions.

IMPERIAL COUNTY ENGINEERING DESIGN GUIDELINES MANUAL FOR THE PREPARATION AND CHECKING OF STREET IMPROVEMENT, DRAINAGE AND GRADING PLANS WITHIN IMPERIAL COUNTY

Based on the guidance contained in the County’s Engineering Guidelines Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans within Imperial County (2008), the following drainage requirements would be applicable to the project.

III A. GENERAL REQUIREMENTS

1. All drainage design and requirements are recommended to be in accordance with the IID “Draft” Hydrology Manual or other recognized source with approval by the County Engineer and based on full development of upstream tributary basins. Another source is the Caltrans I-D-F curves for the Imperial Valley.
3. Permanent drainage facilities and ROW, including access, shall be provided from development to point of satisfactory disposal.

4. Retention volume on retention or detention basins should have a total volume capacity for a three (3) inch minimum precipitation covering the entire site with no C reduction factors. Volume can be considered by a combination of basin size and volume considered within parking and/or landscaping areas. There is no guarantee that a detention basin outletting to an IID facility or other storm drain system will not back up should the facility be full and unable to accept the project runoff. This provides the safety factor from flooding by ensuring each development can handle a minimum 3-inch precipitation over the project site.
8. The developer shall submit a drainage study and specifications for improvements of all drainage easements, culverts, drainage structures, and drainage channels to the Department of Public Works for approval. Unless specifically waived herein, required plans and specifications shall provide a drainage system capable of handling and disposing of all surface waters originating within the subdivision and all surface waters that may flow onto the subdivision from adjacent lands. Said drainage system shall include any easements and structures required by the Department of Public Works or the affected Utility Agency to properly handle the drainage on-site and off-site. The report should detail any vegetation and trash/debris removal, as well as address any standing water.
9. Hydrology and hydraulic calculations for determining the storm system design shall be provided to the satisfaction of the Director, Department of Public Works. When appropriate, water surface profiles and adequate field survey cross-section data may also be required.
11. The County is implementing a storm water quality program as required by the SWRCB, which may modify or add to the requirements and guidelines presented elsewhere in this document. This can include ongoing monitoring of water quality of storm drain runoff, implementation of BMPs to reduce storm water quality impacts downstream or along adjacent properties. Attention is directed to the need to reduce any potential of vectors, mosquitoes, or standing water.
12. A Drainage Report is required for all developments in the County. It shall include a project description, project setting including discussions of existing and proposed conditions, any drainage issues related to the site, summary of the findings or conclusions, off-site hydrology, onsite hydrology, hydraulic calculations and a hydrology map.

IMPERIAL IRRIGATION DISTRICT

The IID is an irrigation district organized under the California Irrigation District Law, codified in Section 20500 et seq. of the California Water Code. Critical functions of IID include diversion and delivery of Colorado River water to the Imperial Valley, operation and maintenance of the drainage canals and facilities, including those in the project area, and generation and distribution of electricity. Several policy documents govern IID operations and are summarized below:

- The Law of the River and historical Colorado River decisions, agreements and contracts
- The Quantification Settlement Agreement and Transfer Agreements
- The Definite Plan, now referred to as the Systems Conservation Plan, which defines the rigorous agricultural water conservation practices being implemented by growers and IID to meet the Quantification Settlement Agreement commitments
- The Equitable Distribution Plan, which defines how IID will prevent overruns and stay within the cap on the Colorado River water rights

- Existing IID standards and guidelines for evaluation of new development and define IID's role as a responsible agency and wholesaler of water

IMPERIAL INTEGRATED WATER RESOURCES MANAGEMENT PLAN

In relation to the project, IID maintains regulation over the drainage of water into their drains, including the design requirements of stormwater retention basins. IID requires that retention basins be sized to handle an entire rainfall event in case the IID system is at capacity. Additionally, IID requires that outlets to IID facilities be no larger than 12 inches in diameter and must contain a backflow prevention device (IID 2009).

3.9.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to hydrology and water quality, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to hydrology and water quality are considered significant if any of the following occur:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater water quality
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - Result in substantial erosion or siltation on- or off-site
 - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite
 - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
 - Impede or redirect flood flows
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

3.9.4 Impact Analysis

Impact 3.9-1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater water quality?

VEGA 6

CONSTRUCTION

Construction of the VEGA 6 project includes site preparation, foundation construction, erection of major equipment and structures, installation of electrical systems, control systems, and startup/testing. In addition, the construction of transmission lines, utility pole pads, conductors, and associated structures will be required.

During the construction phase, sedimentation and erosion can occur because of tracking from earthmoving equipment, erosion and subsequent runoff of soil, or improperly designed stockpiles. The utilization of proper erosion and sediment control BMPs is critical in preventing discharge to surface waters/drains. The project would employ proper SWPPP practices to minimize any discharges in order to meet the Best Available Technology/Best Conventional Technology standard set forth in the Construction General Permit.

The VEGA 6 project has the potential to affect surface water quality. Many different types of hazardous compounds will be used during the construction phase, with proper application, management, and containment being of high importance. Poorly managed construction materials can lead to the possibility for exposure of potential contaminants to precipitation. When this occurs, these visible and/or non-visible constituents become entrained in storm water runoff. If they are not intercepted or are left uncontrolled, the polluted runoff would otherwise freely sheet flow from the project to the IID Imperial Valley Drains and could result in the accumulation of these pollutants in the receiving waters. This is considered a potentially significant impact. With the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the project would be reduced to a less than significant level. Prior to construction and grading activities, the project applicant is required to file an NOI with the SWRCB to comply with the General NPDES Construction Permit and prepare a SWPPP, which addresses the measures that would be included during construction of the VEGA 6 project to minimize and control construction and post-construction runoff to the “maximum extent practicable.” In addition, NPDES permits require the implementation of BMPs that achieve a level of pollution control to the maximum extent practical. With the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the VEGA 6 project would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Monitoring and contingency response measures would be included to verify compliance with water quality objectives for all surface waters crossed during construction. In addition, given that site decommissioning would result in similar activities as identified for construction, these impacts could also occur in the future during site restoration activities.

OPERATION

As runoff flows over developed surfaces, water can entrain a variety of potential pollutants including, but not limited to, oil and grease, pesticides, trace metals, and nutrients. These pollutants can become suspended in runoff and carried to receiving waters. These effects are commonly referred to as non-point source water quality impacts.

Long-term operation of the solar facility poses a limited threat to surface water quality after the completion of construction. The project would be subject to the County’s Grading Regulations as specified in Section 91010.02 of the Ordinance Code. However, since the VEGA 6 project site is located in unincorporated Imperial County and not subject to a Municipal Separate Storm Sewer System or NPDES General Industrial Permit, there is no regulatory mechanism in place to address post-construction water quality concerns. Based on this consideration, the project has the potential to

result in both direct and indirect water quality impacts that could be significant. Implementation of Mitigation Measure HYD-2 would require the VEGA 6 project to incorporate post-construction BMPs into the project’s drainage plan. The proposed VEGA 6 project will be designed to include site design, source control, and treatment control BMPs, as described below. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution.

Site Design BMPs. The VEGA 6 project will be designed to include site design BMPs, which reduce runoff, prevent storm water pollution associated with the VEGA 6 project, and conserve natural areas onsite. Table 3.9-3 lists the various site design BMPs.

Table 3.9-3. Site Design Best Management Practices

Design Concept		Description
1	Minimize Impervious Footprint	The project site will include a significant amount of undeveloped land and pervious area. The footprint for the solar arrays will be predominately pervious ground. A minimal amount of Class II base paving for access roads and parking will be constructed.
2	Conserve Natural Areas	Only a small amount of existing site area can be classified as natural landscape and will only be disturbed in necessary areas at the project.
3	Protect Slopes and Channels	The project site and surrounding areas is comprised of extremely flat topography. Erosion of slopes due to stabilization problems is not a concern.
4	Minimize Directly Connected Impervious Areas	No storm drain will be constructed onsite. The site layout does not change the existing drainage pattern.

Source Control BMPs. Source control BMPs (both structural and non-structural) means land use or site planning practices, or structures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff. Table 3.9-4 identifies source control BMPs that would be applicable to the proposed VEGA 6 project.

Table 3.9-4. Source Control Best Management Practices

Design Concept		Description
1	Design Trash Storage Areas to Reduce Pollution Introduction	Any outdoor trash storage areas will be designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash.
2	Activity Restrictions	Restrictions include activities that have the potential to create adverse impacts on water quality.
3	Non-storm Water Discharges	Illegal dumping educational materials as well as spill response materials will be provided to employees.
4	Outdoor Loading and Unloading	Material handling will be conducted in a manner as to prevent any storm water pollution.
5	Spill Prevention Control and Cleanup	The project will require a Spill Prevention, Control, and Countermeasure Plan, and a Hazardous Materials Business Plan in accordance with Federal and State requirements.
6	Education	Employees will receive materials for storm water pollution prevention in the form of brochures and other information in a format approved by the County of Imperial.



Design Concept		Description
7	Integrated Pest Management	If any pesticide is required onsite, the need for pesticide use in the project design will be reduced by: <ul style="list-style-type: none"> • Keeping pests out of buildings using barriers, screens, and caulking • Physical pest elimination techniques, such as squashing, trapping, washing or pruning out pests • Relying on natural enemies to eat pests • Proper use of pesticides as a last line of defense
8	Vehicle and Equipment Fueling, Cleaning, and Repair	All vehicles will be serviced offsite whenever possible. If servicing is required onsite, it must be conducted in an area isolated from storm drain inlets or drainage ditch inlets. The area must be bermed and precluded from run on. Any spillage must be fully contained and captured and disposed of per County of Imperial Hazardous Waste requirements.
9	Waste Handling and Disposal	Materials will be disposed of in accordance with Imperial County Hazardous Material Management guidelines and will be sent to appropriate disposal facilities. Under no circumstances shall any waste or hazardous materials be stored outside without secondary containment.

Treatment Control BMPs. The proposed VEGA 6 project will incorporate post-construction Low Impact Development Treatment Control BMPs, including but not limited to infiltration trenches or bioswales, which shall be investigated and integrated into the project layout to the maximum extent practicable. The drainage plan shall provide both short-term and long-term drainage solutions to ensure the proper sequencing of drainage facilities and treatment of runoff generated from project impervious surfaces prior to off-site discharge.

The proposed VEGA 6 project shall develop a long-term maintenance plan and implemented to support the functionality of treatment control BMPs. The facility layout shall also include sufficient container storage and on-site containment and pollution-control devices for drainage facilities to avoid the off-site release of water quality pollutants, including, but not limited to oil and grease, fertilizers, treatment chemicals, and sediment.

Ramon Substation Expansion

CONSTRUCTION

Short-term impacts related to water quality would occur during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest. Construction of the proposed Ramon Substation expansion has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes, fuel, and lubricants. Impacts to stormwater quality would occur from construction and associated earth moving, and increased pollutant loadings would occur immediately offsite.

The proposed Ramon Substation expansion has the potential to affect surface water quality. Many different types of hazardous compounds will be used during the construction phase, with proper application, management, and containment being of high importance. Poorly managed construction materials can lead to the possibility for exposure of potential contaminants to precipitation. When this occurs, these visible and/or non-visible constituents become entrained in storm water runoff. If they are not intercepted or are left uncontrolled, the polluted runoff would otherwise freely sheet flow from the project and could result in the accumulation of these pollutants in the receiving waters. This is considered a potentially significant impact. With the implementation of Mitigation Measure RS-HYD-

1, impacts on surface water quality as attributable to the project would be reduced to a less than significant level. Prior to construction and grading activities, IID will be required to file an NOI with the SWRCB to comply with the General NPDES Construction Permit and prepare a SWPPP, which addresses the measures that would be included during construction of the proposed Ramon Substation expansion to minimize and control construction and post-construction runoff to the “maximum extent practicable.” In addition, NPDES permits require the implementation of BMPs that achieve a level of pollution control to the maximum extent practical. With the implementation of Mitigation Measure RS-HYD-1, impacts on surface water quality would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Monitoring and contingency response measures would be included to verify compliance with water quality objectives for all surface waters crossed during construction.

OPERATION

The proposed Ramon Substation expansion would include oil containment pits below the transformer equipment to ensure that any leaks or spills would be contained and would not impact receiving bodies of water. In addition, the majority of the proposed expansion area would be covered in pervious surface, such as crushed rock and natural vegetation. These aspects would minimize the runoff of water on the expansion area to receiving water bodies. In accordance with the project’s Water Quality Management Plan, containment pits, crushed rock surface, and drainage infrastructure would be regularly inspected and maintained in order to ensure proper functioning. Therefore, project operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The proposed Ramon Substation expansion would have a less than significant impact.

Mitigation Measure(s)

VEGA 6

HYD-1 Prepare SWPPP and Implement BMPs Prior to Construction and Site Restoration. The project applicant or its contractor shall prepare a SWPPP specific to the project and be responsible for securing coverage under SWRCB’s NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by the appropriate agency prior to commencement of work and shall be made conditions of the contract with the contractor selected to build and decommission the project. The SWPPP shall incorporate control measures in the following categories:

- Soil stabilization and erosion control practices (e.g., hydroseeding, erosion control blankets, mulching)
- Sediment control practices (e.g., temporary sediment basins, fiber rolls)
- Temporary and post-construction on- and off-site runoff controls
- Special considerations and BMPs for water crossings and drainages

- Monitoring protocols for discharge(s) and receiving waters, with emphasis place on the following water quality objectives: dissolved oxygen, floating material, oil and grease, potential of hydrogen (pH), and turbidity
- Waste management, handling, and disposal control practices
- Corrective action and spill contingency measures
- Agency and responsible party contact information
- Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP

The SWPPP shall be prepared by a Qualified SWPPP Practitioner and/or Qualified SWPPP Developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.

HYD-2 **Incorporate Post-Construction Runoff BMPs into Project Drainage Plan.** The project Drainage Plan shall adhere to the County’s Engineering Guidelines Manual, IID “Draft” Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. Infiltration basins will be integrated into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary.

Ramon Substation Expansion

RS-HYD-1 **Prepare SWPPP and Implement BMPs Prior to Construction.** IID or its contractor shall prepare a SWPPP specific to the project and be responsible for securing coverage under SWRCB’s NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by the appropriate agency prior to commencement of work and shall be made conditions of the contract with the contractor selected to build the project. The SWPPP shall incorporate control measures in the following categories:

- Soil stabilization and erosion control practices (e.g., hydroseeding, erosion control blankets, mulching)

- Sediment control practices (e.g., temporary sediment basins, fiber rolls)
- Temporary and post-construction on- and off-site runoff controls
- Special considerations and BMPs for water crossings and drainages
- Monitoring protocols for discharge(s) and receiving waters, with emphasis place on the following water quality objectives: dissolved oxygen, floating material, oil and grease, potential of hydrogen (pH), and turbidity
- Waste management, handling, and disposal control practices
- Corrective action and spill contingency measures
- Agency and responsible party contact information
- Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP

The SWPPP shall be prepared by a Qualified SWPPP Practitioner and/or Qualified SWPPP Developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.

Significance after Mitigation

VEGA 6

With the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the VEGA 6 project would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Monitoring and contingency response measures would be included to verify compliance with water quality objectives for all surface waters crossed during construction.

With the implementation of Mitigation Measure HYD-2, potential water quality impacts resulting from post-construction discharges during operation for the VEGA 6 project would be reduced to a less than significant level. Implementation of Mitigation Measure HYD-2 would require the VEGA 6 project to incorporate post-construction BMPs into the project's drainage plan. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution.

Ramon Substation Expansion

With the implementation of Mitigation Measure RS-HYD-1, impacts on surface water quality as attributable to the proposed Ramon Substation expansion would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Monitoring



and contingency response measures would be included to verify compliance with water quality objectives for all surface waters crossed during construction.

Impact 3.9-2 Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

VEGA 6

The construction water demand of the VEGA 6 project is estimated to be 160 AF, with an additional 10 AF required for dust control on offsite access roads that are not paved. Thus, as indicated in Figure 3.9-1, the full construction water requirements are 170 acre-feet. The construction water demand represents 1.0 percent of the average annual increase in groundwater storage of 17,000 AF per year and 0.0015 percent of the volume of groundwater in storage in the Imperial Valley Groundwater Basin (accounting for the groundwater level decline from 1974 to 2022). Furthermore, the construction water needs are short-term and temporary. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels (Appendix K of this EIR).

The operational water demand for panel washing and other maintenance needs is based primarily on the number of panels, which relates to the energy production or output, in megawatts. The operational water demand is anticipated to be 8 acre-feet per year. Maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year. The operational water demand will occur throughout the life of the VEGA 6 project which is anticipated to be 25 to 30 years.

The annual operational water needs are equivalent to 0.05 percent of the average annual increase in groundwater storage of 17,000 AF per year and 0.00008 percent of the volume of groundwater in storage in the Imperial Valley Groundwater Basin (accounting for the groundwater level decline from 1974 to 2022). Therefore, the long-term operation and maintenance of the VEGA 6 project would not have any measurable effect or impact on groundwater resources in the Basin (Appendix K of this EIR).

Based on the analysis above, there is sufficient water available for anticipated future water demands in the Basin to accommodate the proposed VEGA 6 project during normal, single dry year, and multiple dry year periods for the lifetime of the VEGA 6 project. As such, impacts would be less than significant.

Further, groundwater recharge in the area will not be significantly affected as the majority of the project site will feature a pervious landscape in both the existing and proposed conditions. Any runoff from solar panel washing would evaporate or percolate through the ground, as a majority of the surfaces in the solar field would remain pervious. The proposed VEGA 6 project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the VEGA 6 project may impede sustainable groundwater management of the basin. No significant impacts on groundwater supply or recharge would occur.

Ramon Substation Expansion

The proposed Ramon Substation expansion does not include residential or commercial uses that would require groundwater supplies. Therefore, the proposed expansion would have no impact on groundwater supplies or recharge in the expansion area.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.9-3 *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

Result in substantial erosion or siltation on- or off-site?

VEGA 6

Project implementation would not substantially alter the existing drainage pattern of the site or area. Soil erosion could result during construction of the proposed VEGA 6 project in association with grading and earthmoving activities. The VEGA 6 project site would be disturbed by construction activities such as grading and clearing as a part of site preparation. To the extent feasible, site preparation would be planned and designed to minimize the amount of earth movement. Compaction of the soil to support building and traffic loads as well as the PV module supports may be required and is dependent on final engineering design. During construction, erosion would be controlled in accordance with County standards which include preparation, review and approval of a grading plan by the County Engineer; implementation of a Dust Control Plan (Rule 801); and compliance with the NPDES General Construction Permit and project-specific SWPPP, as outlined in Mitigation Measure HYD-1.

After construction is complete, all existing roads would be left in a condition equal to or better than their preconstruction condition. All other areas disturbed by construction activities would be recontoured and decompacted. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that erosion increases when compared to existing conditions. The VEGA 6 project site would remain largely impervious over the operational life of the project. Additionally, the project would implement site design BMPs, as outlined in Table 3.9-3, which would reduce soil disturbance during operation. The proposed VEGA 6 project would result in less than significant impacts associated with the alteration of drainage patterns resulting in substantial erosion or siltation on- or off-site.

Ramon Substation Expansion

Project implementation would not substantially alter the existing drainage pattern of the site or area. Soil erosion could result during construction of the proposed Ramon Substation expansion area in association with grading and earthmoving activities. The expansion area would be disturbed by construction activities such as grading and clearing as a part of site preparation. To the extent feasible, site preparation would be planned and designed to minimize the amount of earth movement. During construction, erosion would be controlled in accordance with County standards which include preparation, review and approval of a grading plan by the County Engineer; implementation of a Dust Control Plan; and compliance with the NPDES General Construction Permit and project-specific SWPPP, as outlined in Mitigation Measure RS-HYD-1.

Minimal impervious surface would be added to the proposed expansion area and would be limited to pervious, crushed rock surface cover. This would allow for water infiltration and would not substantially alter the existing drainage pattern of the site or area. Therefore, the proposed Ramon Substation expansion would have a less than significant impact.

Mitigation Measure(s)

VEGA 6

No additional mitigation measures beyond Mitigation Measures HYD-1 are required.

Ramon Substation Expansion

No additional mitigation measures beyond Mitigation Measures HYD-1 are required.

Significance after Mitigation

VEGA 6

With the implementation of Mitigation Measure HYD-1, potential impacts associated with the alteration of drainage patterns resulting in substantial erosion or siltation on- or off-site would be reduced to a level less than significant through compliance with County standards, implementation of a Dust Control Plan (Rule 801), and compliance with the NPDES General Construction Permit and project-specific SWPPP.

Ramon Substation Expansion

With the implementation of Mitigation Measure HYD-1, potential impacts associated with the alteration of drainage patterns resulting in substantial erosion or siltation on- or off-site would be reduced to a level less than significant through compliance with County standards, implementation of a Dust Control Plan, and compliance with the NPDES General Construction Permit and project-specific SWPPP.

Impact 3.9-4 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

VEGA 6

Project implementation would not substantially alter the existing drainage pattern of the site or area. The majority of the VEGA 6 project site would continue to sheet flow through the pervious native soils. The VEGA 6 project will be designed to meet County of Imperial storage requirements (100 percent of the 100-year storm (3 inches of rain)) (refer to the County's Engineering Guidelines Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans within Imperial County (2008) for storm water runoff, which will result in an impoundment of runoff in excess of the anticipated volume of runoff to be generated by the 100-year storm event. Additionally, implementation of Mitigation Measure HYD-2 requires that the project Drainage Plan adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. As such, infiltration basins will be integrated

into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary.

Additionally, after construction is complete, all existing roads would be left in a condition equal to or better than their preconstruction condition. All other areas disturbed by construction activities would be recontoured and decompacted. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that flooding (on- or off-site) increases when compared to existing conditions. Lastly, the VEGA 6 project site would remain largely pervious over the operational life of the project. Therefore, the proposed VEGA 6 project would result in no significant impacts associated with the alteration of drainage patterns resulting in on- or off-site flooding.

Ramon Substation Expansion

Implementation of the proposed Ramon Substation expansion would involve minimal grading and various construction activities on relatively flat terrain. Standard construction procedures, and federal, state and local regulations implemented in conjunction with the site's SWPPP and its BMPs required under the NPDES General Construction Permit, would minimize potential for erosion during construction. These practices would keep substantial amounts of soil material from eroding from the expansion area and prevent deposition within receiving waters located downstream. The potential for on-site erosion may increase due to grading and excavating activities during the construction phase for the proposed expansion. However, BMPs would be implemented for maintaining water quality and reducing erosion.

Additionally, the WQMP for the proposed Ramon Substation expansion will require that natural areas outside the project footprint remain undisturbed during construction and operation, which will limit the area of disturbance during construction. The WQMP will also require inspections prior to storm events and regular maintenance and of the crushed rock surface and drainage infrastructure during operation of the substation to ensure that they are operating as designed. Off-site erosion would not be substantially affected by the proposed expansion due to the relatively flat topography that surrounds the expansion area. Therefore, the proposed expansion would have a less than significant impact on increases in water-induced erosion on- or off-site.

Mitigation Measure(s)

VEGA 6

Implement Mitigation Measure HYD-2.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With the implementation of Mitigation Measure HYD-2, impacts on existing drainage patterns as a result of potentially substantial increases to runoff would be reduced to a level less than significant. Implementation of Mitigation Measure HYD-2 would require the VEGA 6 project's Drainage Plan to adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other

recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems.

Impact 3.9-5 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

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

VEGA 6

During construction, erosion and associated pollutants would be controlled in accordance with County standards which include preparation, review and approval of a grading plan by the County Engineer; implementation of a Dust Control Plan (Rule 801); and compliance with the NPDES General Construction Permit and project-specific SWPPP, as outlined in Mitigation Measure HYD-1 (see Impact 3.9-1 for additional details).

After construction is complete, all existing roads would be left in a condition equal to or better than their preconstruction condition. All other areas disturbed by construction activities would be recontoured and decompacted. The proposed VEGA 6 project is not anticipated to generate a significant increase in the amount of runoff water when compared to existing conditions. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that runoff increases would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The VEGA 6 project site would remain largely pervious over the operational life of the project. Water will continue to percolate through the ground, as a majority of the surfaces on the VEGA 6 project site will remain pervious. The proposed VEGA 6 project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. This is considered a less than significant impact.

Ramon Substation Expansion

Minimal impervious surface would be added to the proposed expansion area and would be limited to pervious, crushed rock surface cover. This would allow for water infiltration and would not substantially alter the existing drainage pattern of the site or area. The proposed expansion would not create or contribute to runoff that would exceed the existing capacity of stormwater drainage systems nor substantially contribute to polluted runoff. This is considered a less than significant impact.

Mitigation Measure(s)

VEGA 6

Implement Mitigation Measure HYD-1.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With the implementation of Mitigation Measure HYD-1, impacts on the existing drainage pattern by the VEGA 6 project that could result in substantial or polluted runoff would be reduced to a level less than significant through compliance with County standards, implementation of a Dust Control Plan (Rule 801), and compliance with the NPDES General Construction Permit and project-specific SWPPP.

Impact 3.9-6 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

Impede or redirect flood flows?

VEGA 6

Project implementation would not substantially alter the existing drainage pattern of the site or area. The proposed VEGA 6 project is not anticipated to generate a significant increase in the amount of runoff water from water use involving solar panel washing. Water will continue to percolate through the ground, as a majority of the surfaces on the VEGA 6 project site will remain pervious. Additionally, according to the FEMA's FIRM (Map Number Map Number 06025C100C) (FEMA 2008), the proposed solar energy facility and access roads located on the project site are located in Zone X (unshaded). The FEMA Zone X (unshaded) designation is an area determined to be outside the 0.2 percent annual chance floodplain. The gen-tie transmission line runs through FEMA Flood Zone A, which is a special flood hazard zone with 1 percent annual chance of flooding. The transmission pole foundations would be small relative to the width of the floodplain and would not pose a substantial obstruction to flood flow flows and would be located outside the floodplain to the maximum extent practical. Therefore, the proposed VEGA 6 project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, and impacts would be less than significant.

Ramon Substation Expansion

Minimal impervious surface would be added to the proposed expansion area and would be limited to pervious, crushed rock surface cover. This would allow for water infiltration and would not substantially alter the existing drainage pattern of the site or area. The proposed expansion is not anticipated to impede or redirect flood flows. This is considered a less than significant impact.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.9-7 In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

VEGA 6

The VEGA 6 project site is not located near any large bodies of water. The Salton Sea is located approximately 6 miles north of the VEGA 6 project site. Because of the distance, the Salton Sea does not pose a danger of inundation from seiche or tsunami as related to the VEGA 6 project site. Furthermore, the VEGA 6 project site is over 100 miles inland from the Pacific Ocean. In addition, the VEGA 6 project site is relatively flat. Therefore, there is no potential for the project site to be inundated by seiches or tsunamis. No impact would occur.

Ramon Substation Expansion

The Ramon Substation expansion area is not located near any large bodies of water. The expansion area is located approximately 30 miles northwest of the Salton Sea. Because of the distance, the Salton Sea does not pose a danger of inundation from seiche or tsunami. Furthermore, the expansion area is approximately 79 miles inland from the Pacific Ocean. In addition, the expansion area is relatively flat. Therefore, there is no potential for the project site to be inundated by seiches or tsunamis. No impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.9-8 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

VEGA 6

As described under Impact 3.9-1 above, with the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the VEGA 6 project would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Implementation of Mitigation Measure HYD-2 would require the VEGA 6 project to incorporate post-construction BMPs into the project's drainage plan. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. Additionally, the VEGA 6 project would not require the direct use of groundwater. Therefore, the proposed VEGA 6 project would not pose a significant threat to local surface water features or shallow groundwater resources, and, as such would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Implementation of Mitigation Measures HYD-1 and HYD-2 would reduce impacts to a level less than significant.

Ramon Substation Expansion

As described under Impact 3.9-1 above, with the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the Ramon Substation expansion would be reduced

to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources.

The proposed Ramon Substation expansion does not include residential or commercial uses that would require groundwater supplies. Therefore, the proposed expansion would not conflict with nor obstruct implementation of a sustainable groundwater management plan. Therefore, no impact would occur.

Mitigation Measure(s)

VEGA 6

No additional mitigation measures beyond Mitigation Measures HYD-1 and HYD-2 are required.

Ramon Substation Expansion

No mitigation measures are required.

Significance after Mitigation

VEGA 6

With the implementation of Mitigation Measures HYD-1 and HYD-2, the potential water quality impacts resulting during construction and operation of the VEGA 6 project would be reduced to a level less than significant.

3.9.5 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Decommissioning and restoration activities would result in similar impacts on hydrology and water quality as would occur during construction of the proposed project. The primary water quality issue associated with decommissioning/restoration would be potential impacts on surface water quality, as the decommissioning activities would be similar to construction activities and would be considered a significant impact. However, during decommissioning, soil erosion would be controlled in accordance with NPDES General Construction Permit(s) and project-specific SWPPP. Compliance with requirements and best available control technologies in place at the time of decommissioning are anticipated to be similar to, or more stringent than, those currently required. Compliance with all applicable water quality regulations would reduce the project's impacts during decommissioning to a level less than significant. Impacts on other water resource issues, including alteration of drainage patterns, contributing to off-site flooding, impacts on groundwater recharge and supply, would be less than significant. There would be no impact associated with inundation from flooding or mudflows.

Residual

With implementation of the mitigation measures listed above, implementation of the project would not result in any residual significant impacts related to increased risk of flooding from stormwater runoff, from water quality effects from long-term urban runoff, or from short-term alteration of drainages and associated surface water quality and sedimentation. With the implementation of the required mitigation



measures during construction and decommissioning of the project, water quality impacts would be minimized to a less than significant level. Based on these circumstances, the project would not result in any residential significant and unmitigable adverse impacts on surface water hydrology and water quality.

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3.10 Land Use and Planning

This section provides information regarding current land use, land use designations, and land use policies within and in the vicinity of the VEGA 6 project site and Ramon Substation expansion area. Section 15125(d) of the CEQA Guidelines states that “[t]he EIR shall discuss any inconsistencies between the project and applicable general plans and regional plans.” This section fulfills this requirement for the project. In this context, this section reviews the land use assumptions, designations, and policies of the applicable County General Plan and other applicable federal, state, and local requirements, which govern land use within the project area and evaluates the project’s potential to conflict with policies adopted for the purpose of avoiding or mitigating significant environmental effects. Where appropriate, mitigation is applied, and the resulting level of impact identified.

3.10.1 Existing Conditions

VEGA 6

Solar Energy Facility Site

The solar energy facility site is located on approximately 320 acres of privately-owned vacant land on a single parcel (APN 034-160-002) in the unincorporated area of Imperial County, CA. The site is located approximately 6 miles south of the southern-most edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. The solar energy facility site is located directly south of Andre Road and 0.50 mile west of the Westside Main Canal.

As shown in Figure 3.10-1, the solar energy facility site’s land use designation is Agriculture under the County’s General Plan. As shown in Figure 3.10-2, the solar energy facility site is currently zoned Open Space/Preservation (S-2).

As discussed in Chapter 2, the County adopted the Renewable Energy and Transmission Element, which includes a RE Zone (RE Overlay Map). The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. As shown in Figure 2-1, the solar energy facility site is located outside of the RE Overlay Zone. The project applicant is requesting a General Plan Amendment and Zone Change to include/classify the solar energy facility site (APN No. 034-160-002) into the RE Overlay Zone. Further, implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system.

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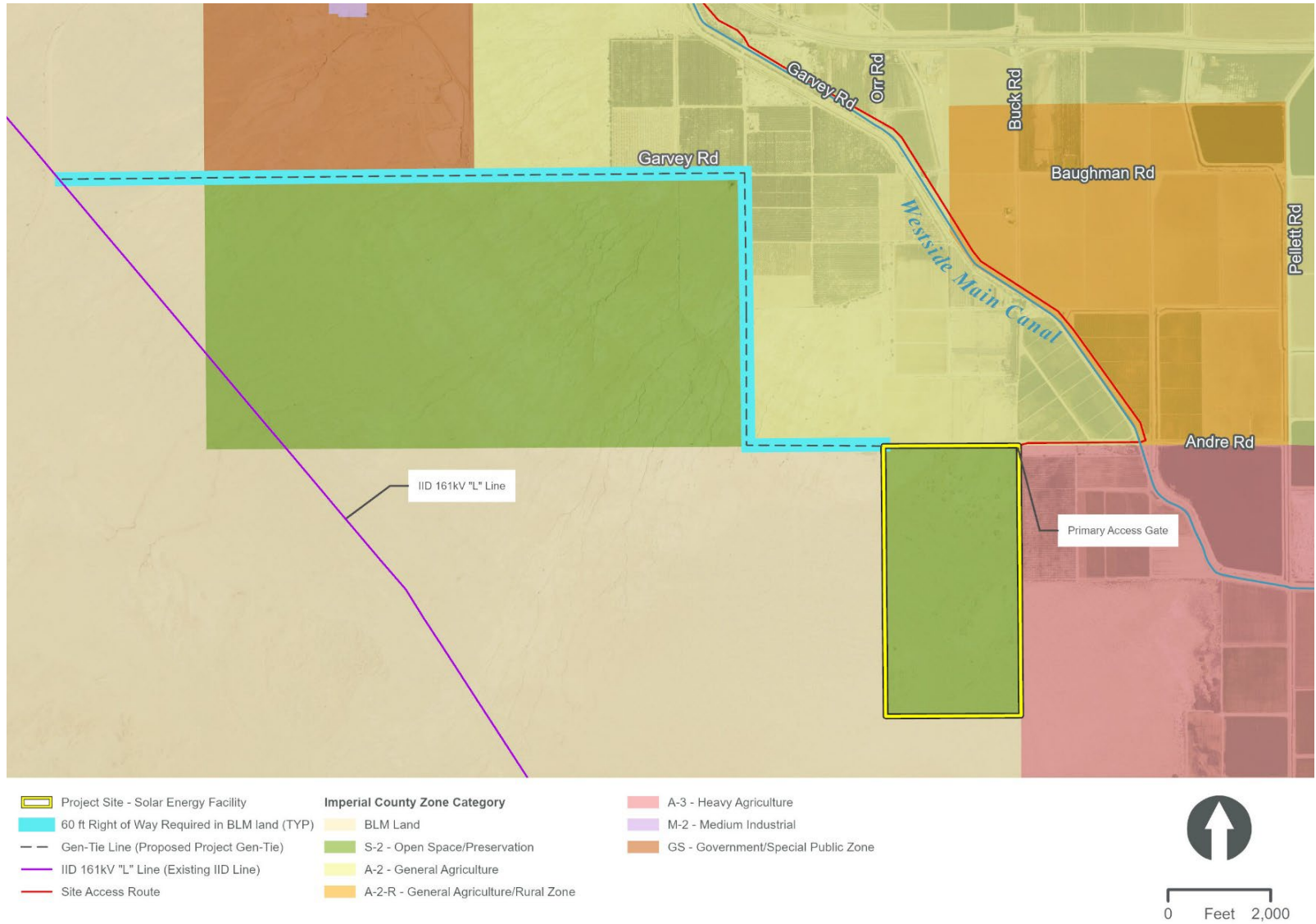


Figure 3.10-1. General Plan Land Use Designations



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Figure 3.10-2. Zoning Designations



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Gen-Tie Line

The proposed project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the BLM within the California Desert Conservation Area (CDCA) planning area (Figure 3.10-3). The CDCA is a 25-million-acre expanse of land in Southern California designated by the Congress in 1976 through the Federal Land Policy and Management Act (FLPMA). Approximately 10 million acres of the CDCA are administered by BLM under its CDCA Plan.

The BLM prepared a Land Use Plan Amendment (LUPA) to the CDCA Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The DRECP was developed to facilitate the timely and streamlined permitting of renewable energy projects. The BLM designates Renewable Energy Development Focus Areas (DFA) which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. The intent is to incentivize and streamline such development in these areas. Transmission development and operation will occur in previously designated corridors and other identified areas, both inside and outside the DFAs.

As shown in Figure 3.10-4, the western portion of the gen-tie line is located within a Renewable Energy DFA.

Ramon Substation Expansion

The existing Ramon Substation is located on a single parcel (APN 651-230-015) in unincorporated Riverside County, generally northeast of Cathedral City, north of the Interstate-10 Freeway. The existing substation currently occupies approximately 6.7 acres of the 11.26-acre parcel. As shown in Figure 3.10-3, the proposed upgrades would involve expansion of an approximately 4-acre area immediately adjacent to the existing substation. Immediately west of the existing Ramon Substation and proposed expansion area is the existing SCE Mirage Substation. The nearest residences to the proposed expansion area are located west of the existing SCE Mirage Substation along Via Las Palmas and the Tri Palm Estates development along Ramon Road to the southwest.

The Ramon Substation expansion area is located within the Western Coachella Valley Area Plan (WCVAP) and is designated Rural Residential (RR) in the Riverside County General Plan (County of Riverside 2021).

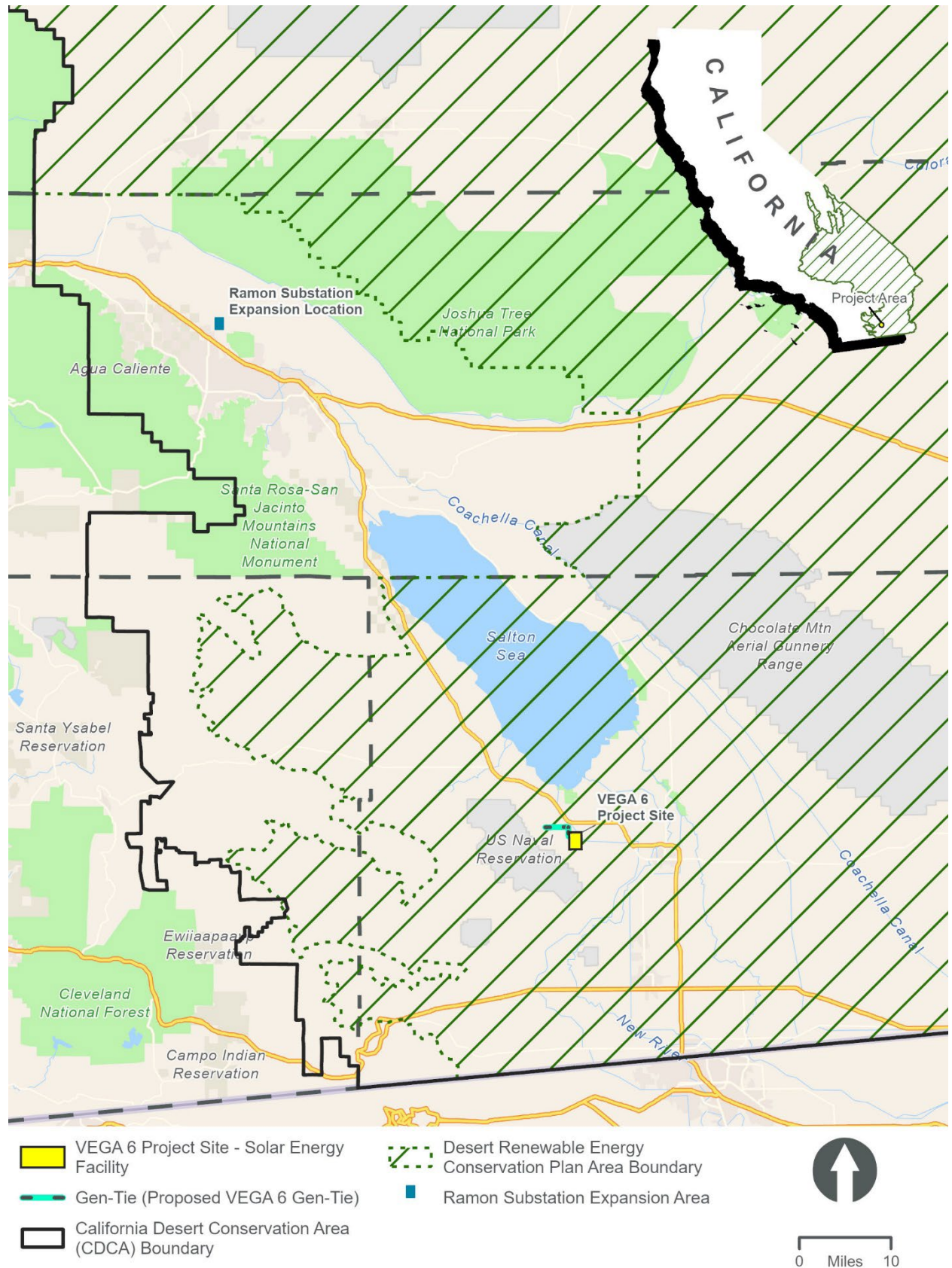
The Riverside County Zoning Ordinance, which is part of the County's Municipal Code, assigns a zoning designation to all properties within the County's boundaries. The Ramon Substation expansion area is zoned General Residential Zone (R-3). The Riverside County Zoning Ordinance does not identify public utilities as a permitted or conditional use in R-3. However, per Section 17.208.010, facilities for the storage or transmission of electrical energy is permitted with a Public Use Permit:

Facilities for the storage or transmission of electrical energy where the County is not preempted by law from exercising jurisdiction. This subsection shall take precedence over and supersede any conflicting provision in any zone classification. Facilities for the storage or transmission of electrical energy shall not be subject to the development standards of the zone classification in which they are located.

The existing Ramon Substation is currently operating under an approved Public Use Permit.

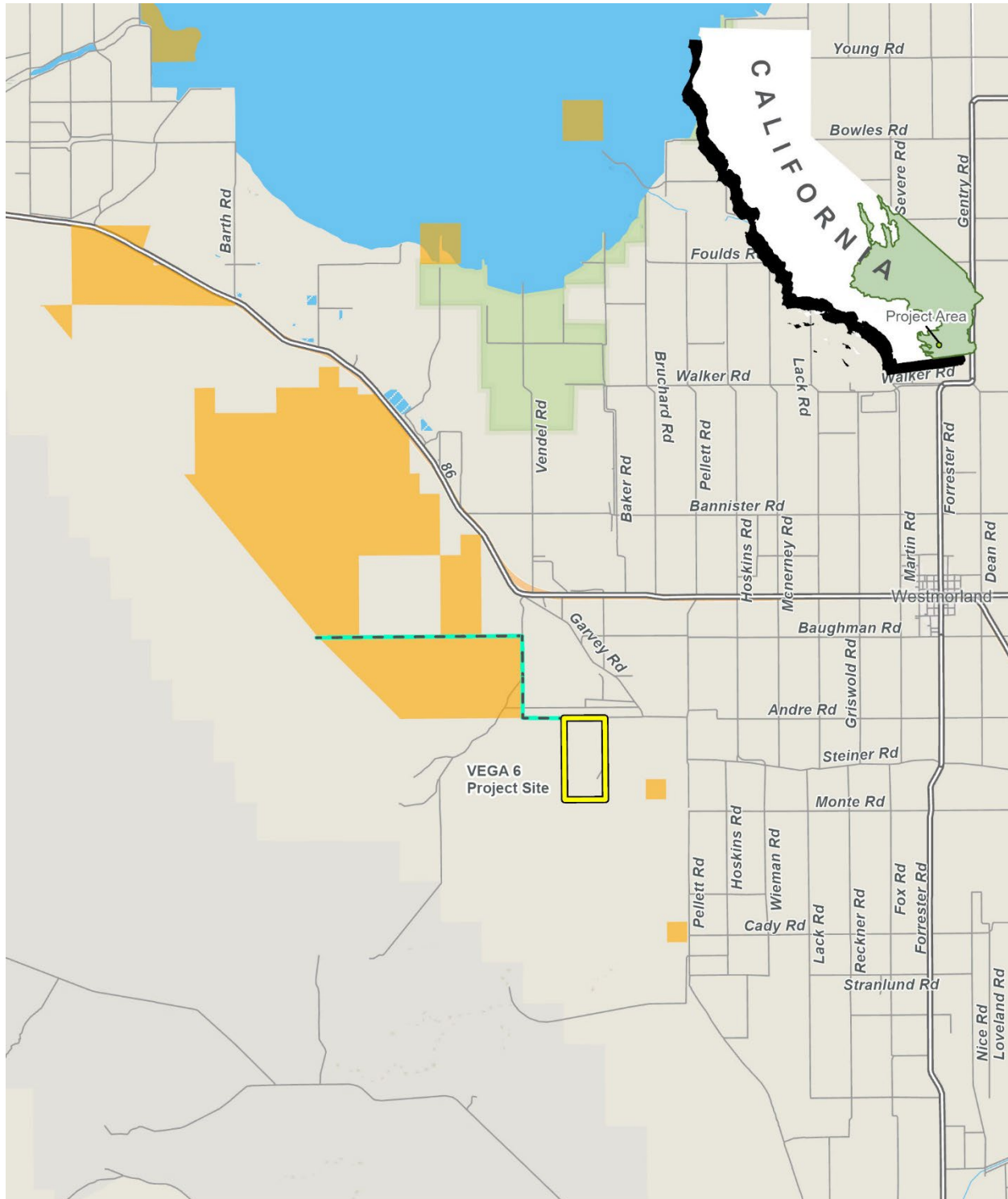
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Figure 3.10-3. CDCA and DRECP Planning Areas



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Figure 3.10-4. DRECP Renewable Energy DFA



-  VEGA 6 Project Site – Solar Energy Facility
-  Gen-Tie (Proposed VEGA 6 Gen-Tie)
- Renewable Energy Development Designation**
-  Development Focus Areas



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3.10.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Federal Land Policy and Management Act

The United States Congress passed the Federal Land Policy and Management Act (FLPMA) in 1976. Title V, “Rights-of-Way” of the FLPMA establishes public land policy, guidelines for administration, provides for management, protection, development, and enhancement of public lands, and provides the BLM authorization to grant right-of-way. Authorization of systems for generation, transmission, and distribution of electric energy is addressed in Section 501(4) of Title V. In addition, Section 503 specifically addresses “Right of Way Corridors” and requires common right-of-ways “to the extent practical”. FLPMA, Title V, Section 501(a)(6) states, “The Secretary, with respect to the public lands (including public lands, as defined in section 103(e) of this Act, which are reserved from entry pursuant to section 24 of the Federal Power Act (16 U.S.C. 818)) [P.L. 102-486, 1992] and, the Secretary of Agriculture, with respect to lands within the National Forest System (except in each case land designated as wilderness), are authorized to grant, issue, or renew rights-of-way over, upon, under, or through such lands for roads, trails, highways, railroads, canals, tunnels, tramways, airways, livestock driveways, or other means of transportation except where such facilities are constructed and maintained in connection with commercial recreation facilities on lands in the National Forest System” (BLM 2016). The proposed right-of-way request associated with the VEGA 6 project is subject to review and approval by the BLM.

California Desert Conservation Area Plan

Section 601 of the FLPMA required preparation of a long-range plan for the California Desert Conservation Area (CDCA). The CDCA Plan was adopted in 1980 to provide for the use of public lands and resources of the CDCA in a manner which enhances wherever possible and, which does not diminish, on balance, the environmental, cultural, and aesthetic values of the Desert and its productivity. The CDCA Plan is a comprehensive, long-range plan covering 25 million-acres. Approximately 12 million acres of this total are public lands administered by the BLM on behalf of the CDCA. These public lands are dispersed throughout the California Desert which includes the Mojave Desert, the Sonoran Desert and a small portion of the Great Basin Desert. The 12 million acres of public lands administered by the BLM make-up approximately half of the CDCA. The CDCA is applicable to the federal (i.e., BLM) actions associated with implementation of the proposed VEGA 6 project (the portion of the project [gen-tie line] not otherwise located on private lands).

Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) is a collaborative, interagency landscape-scale planning effort covering 22.5 million acres of the Mojave and Colorado/Sonoran desert regions within seven California counties including Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego. The plan was developed through a collaborative effort by the Renewable Energy Action Team Agencies (REAT Agencies; also known as the DRECP partner agencies), which consists of the BLM, U.S. Fish and Wildlife Service (USFWS), California Energy Commission (CEC), and California Department of Fish and Wildlife (CDFW). The vision for the DRECP is to (US Bureau of Land Management 2016):

1. Advance federal and state natural resource conservation goals and other federal land management goals.
2. Meet the requirements of the federal Endangered Species Act (ESA) and Federal Land Policy and Management Act (FLPMA).
3. Facilitate the timely and streamlined permitting of renewable energy projects.

The DRECP Area contains both federal and non-federal California desert land. Some of these lands are designated as California Desert Conservation Areas. The federal portion of the plan area was released by the BLM as a Land Use Plan Amendment. The DRECP Land Use Plan Amendment supports the conservation goals of the DRECP and organizes land into ecoregions and subregions with specific management goals, objectives, allowable uses, and management actions for biological and cultural resources. The BLM designates Areas of Critical Environmental Concern where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. The BLM also designates Renewable Energy Development Focus Areas which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. The intent is to incentivize and streamline such development in these areas.

State

State Planning and Zoning Laws

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning.

The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a 20-year period or more.

The State Zoning Law (California Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific zone district, are required to be consistent with the general plan and any applicable specific plans.

Regional

Southern California Association of Governments – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)

SCAG is the designated metropolitan planning organization for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region's "Clearinghouse," collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

On September 3, 2020, SCAG adopted the 2020-2045 RTP/SCS (Connect SoCal). The 2020-2045 RTP/SCS (Connect SoCal) includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the NAAQS as set forth by the federal CAA. The following goals from the 2020-2045 RTP/SCS (Connect SoCal) are considered applicable to the proposed project:

- Goal 5: Reduce GHG emissions and improve air quality
- Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats

Local

Imperial County General Plan

The purpose of the County's General Plan (as amended through 2008) is to direct growth, particularly urban development, to areas where public infrastructure exists or can be provided, where public health and safety hazards are limited, and where impacts on the County's abundant natural, cultural, and economic resources can be avoided. The following 10 elements comprise the County's General Plan: Land Use; Housing; Circulation and Scenic Highways; Noise; Seismic and Public Safety; Conservation and Open Space; Agricultural; Renewable Energy and Transmission Element; Water; and Parks and Recreation. Together, these elements satisfy the seven mandatory general plan elements as established in the California Government Code. Goals, objectives, and implementing policies and actions programs have been established for each of the elements.

Imperial County received funding from the CEC's Renewable Energy and Conservation Planning Grant to amend and update the County's General Plan in order to facilitate future development of renewable energy projects. The Geothermal/Alternative Energy and Transmission Element was last updated in 2006. Since then, there have been numerous renewable projects proposed, approved and constructed within Imperial County as a result of California's move to reduce greenhouse gas emissions, develop alternative fuel sources and implement its Renewable Portfolio Standard. The County has recently prepared an update to the Geothermal/Alternative Energy and Transmission Element of its General Plan, called the Renewable Energy and Transmission Element. This Element is designed to provide guidance and approaches with respect to the future siting of renewable energy projects and electrical transmission lines in the County. The County adopted this element in 2016.

The RE and Transmission Element includes a RE Zone (RE Overlay Map). The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of RE projects, with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of RE facilities while minimizing the impact to other established uses. As previously mentioned, the VEGA 6 project site is located outside of the RE Overlay Zone.

An analysis of the project's consistency with the General Plan goals and objectives relevant to the project is provided in Table 3.10-1. While this EIR analyzes the project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Planning Commission and Board of Supervisors retain final authority for the determination of the VEGA 6 project's consistency with the General Plan.

Table 3.10-1. Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Land Use Element		
<p>Public Facilities, Objective 8.7. Ensure the development, improvement, timing, and location of community sewer, water, and drainage facilities will meet the needs of existing communities and new developing areas.</p>	<p>Consistent</p>	<p>The project includes the necessary supporting infrastructure and would not require new community-based infrastructure. The project would be required to construct supporting drainage consistent with County requirements and mitigation measures prescribed in Section 3.9, Hydrology/Water Quality, of the EIR.</p> <p>Once the project is operational, water would be required for solar panel washing and fire protection. The project would receive water service from the IID. Water would be purchased from the IID and delivered to the project site by water trucks. The proposed project would not require an operations and maintenance building. Therefore, no septic or other wastewater disposal systems would be required for the project.</p>
<p>Public Facilities, Objective 8.8. Ensure that the siting of future facilities for the transmission of electricity, gas, and telecommunications is compatible with the environment and County regulation.</p>	<p>Consistent</p>	<p>The County Land Use Ordinance, Division 17, includes the Renewable Energy Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.</p> <p>The County's General Plan and Land Use Ordinance allows that for renewable energy projects proposed on land classified in a non-RE Overlay zone, that the land on which the project is located may be included/classified in the RE Overlay Zone if the renewable energy project: 1) would be located adjacent to an existing RE Overlay Zone; 2) is not located in a sensitive area; 3) is located in proximity to renewable energy infrastructure; and, 4) and would not result in any significant environmental impacts.</p> <p>The project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the site into the RE Overlay Zone. With the approval of a General Plan Amendment, CUP, and zone change, the proposed solar project can be implemented.</p>
<p>Public Facilities, Objective 8.9. Require necessary public utility rights-of-way when appropriate.</p>	<p>Consistent</p>	<p>The project would include the dedication of necessary ROW to facilitate the placement of electrical distribution and transmission infrastructure.</p>



General Plan Policies	Consistency with General Plan	Analysis
Protection of Environmental Resources, Objective 9.6. Incorporate the strategies of the Imperial County AQAP in land use planning decisions and as amended.	Consistent	Because of the minimal grading of the site during construction and limited travel over the site during operations, local vegetation is anticipated to remain largely intact which will assist in dust suppression. Furthermore, dust suppression will be implemented including the use of water and soil binders during construction. Section 3.3, Air Quality, discusses the project's consistency with the AQAP in more detail.
<i>Circulation and Scenic Highways Element</i>		
Safe, Convenient, and Efficient Transportation System, Objective 1.1. Maintain and improve the existing road and highway network, while providing for future expansion and improvement based on travel demand and the development of alternative travel modes.	Consistent	Once construction is completed, the project would be remotely operated, controlled and monitored and with no requirement for daily onsite employees. The project would include limited operational vehicle trips and would not be expected to reduce the current level of service at affected intersections, roadway segments, and highways. The project does not propose any forms for residential or commercial development and therefore would not require new forms of alternative transportation to minimize impacts on existing roadways.
Safe, Convenient, and Efficient Transportation System, Objective 1.2. Require a traffic analysis for any new development which may have a significant impact on County roads.	Consistent	As described in Section 3.13 Transportation/Circulation, project operations would have a less than significant impact on the circulation network.
<i>Noise Element</i>		
Noise Environment. Objective 1.3. Control noise levels at the source where feasible.	Consistent	Where construction-related and operational noise would occur in close proximity to noise sensitive land uses (e.g., less than 500 feet), the County would condition the project to maintain conformance with County noise standards.
Project/Land Use Planning. Goal 2: Review Proposed Actions for noise impacts and require design which will provide acceptable indoor and outdoor noise environments.	Consistent	The project would be required to comply with the County's noise standards during both construction and operation.
<i>Conservation and Open Space Element</i>		
Conservation of Environmental Resources for Future Generations Goal 1: Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.	Consistent	The project site would be converted from undeveloped land to a solar energy facility. The proposed project is a response to the state's need for renewable energy to meet its Renewable Portfolio Standard, and while it would increase the availability of renewable energy, it would also replace existing sources of non-renewable energy. The power generated by the proposed project would be added to the state's electricity grid with the intent that it would displace fossil fueled power plants and their associated environmental impacts (i.e., air quality and GHG emissions). The proposed project would ensure future generations have access to a broad array of renewable

General Plan Policies	Consistency with General Plan	Analysis
		energy sources, providing the public with alternative choices to fossil fuels.
<p>Conservation of Biological Resources. Goal 2: The County will integrate programmatic strategies for the conservation of critical habitats to manage their integrity, function, productivity, and long-term viability.</p>	Consistent	<p>A biological resources survey was conducted for the project site. As discussed in Section 3.4, Biological Resources, there are sensitive biological resources located within the project site. However, with the implementation of mitigation identified in Section 3.4, Biological Resources, these impacts would be reduced to a level less than significant.</p>
<p>Preservation of Cultural Resources. Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.</p>	Consistent	<p>A cultural resource inventory was prepared for the project site. As discussed in Section 3.5, Cultural Resources, the proposed project has the potential to encounter undocumented archaeological resources and human remains. However, with the implementation of mitigation identified in Section 3.5, Cultural Resources, these potential impacts would be reduced to a level less than significant.</p>
<p>Conservation of Water Resources. Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations.</p>	Consistent	<p>As discussed in Section 3.9, Hydrology/Water Quality, the project will prepare a site-specific drainage plan and water quality management plan to minimize adverse effects to local water resources; as well as coordinate with the IID for water consumption during construction and operation of the project.</p>
<p>Protection of Air Quality and Addressing Climate Change. Goal 7: The County shall actively seek to improve the quality of air in the region.</p>	Consistent	<p>The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality and reduce GHG emissions by reducing the amount of emissions that would be generated in association with electricity production from a fossil fuel burning facility. Therefore, the proposed project is consistent with this goal.</p>
<p>Protection of Air Quality and Addressing Climate Change. Objective 7.1: Ensure that all project and facilities comply with current Federal, State and local requirements for attainment of air quality objectives.</p>	Consistent	<p>The proposed project would comply with current federal and State requirements for attainment for air quality objectives through conformance with all applicable ICAPCD rules and requirements to reduce fugitive dust and emissions. Further, the proposed project would comply with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard Air Quality Measures. Therefore, the proposed project is consistent with this objective.</p>
<p>Protection of Air Quality and Addressing Climate Change. Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all federal and state agencies in the effort to attain air quality objectives.</p>	Consistent	<p>The Applicant would cooperate with all federal and State agencies in the effort to attain air quality objectives through compliance with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard Air Quality Measures. Therefore, the proposed project is consistent with this objective.</p>



General Plan Policies	Consistency with General Plan	Analysis
Protection of Open Space and Recreational Opportunities. Objective 8.2: Focus all new renewable energy development within adopted Renewable Energy Overlay Zones.	Consistent	The project site is located outside of the RE Overlay Zone. The project applicant is requesting a General Plan Amendment and Zone Change to include/classify the project site into the RE Overlay Zone. With the approval of the General Plan Amendment, Zone Change, and CUP, the proposed solar project can be implemented.
Renewable Energy and Transmission Element		
Objective 1.4: Analyze potential impacts on agricultural, natural, and cultural resources, as appropriate.	Consistent	This EIR has been prepared to meet the requirements of CEQA for purposes of evaluating the potential environmental impacts associated with the proposed project, which includes analysis on applicable environmental topics that analyze impacts on agricultural, natural, and cultural resources.
Objective 1.5: Require appropriate mitigation and monitoring for environmental issues associated with developing renewable energy facilities.	Consistent	Please refer to Section 6.0, Effects Found Not to be Significant, for a description of existing agricultural resources within the project site and a discussion of potential impacts attributable to the project. A Biological Technical Report has been prepared for the project, which is summarized in Section 3.4, Biological Resources, along with potential impacts attributable to the project. With incorporation of mitigation identified in Section 3.4, Biological Resources, less than significant impacts would result.
Objective 1.6: Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.	Consistent	Water use during construction would be used primarily for dust control and obtained from local IID irrigation canals or laterals in conformance with IID construction water acquisition requirements. The project applicant will also coordinate with IID to purchase water needed for maintenance activities (i.e., PV module washing) to ensure efficient use of water resources.
Objective 1.7: Assure that development of renewable energy facilities and transmission lines comply with Imperial County Air Pollution Control District's regulations and mitigation measures.	Consistent	Because of the minimal grading of the site during construction and limited travel over the site during operations, local vegetation is anticipated to remain largely intact which will assist in dust suppression. Furthermore, dust suppression will be implemented including the use of water and soil binders during construction. Section 3.3, Air Quality, discusses the project's consistency with the ICAPCD in more detail.
Objective 2.1: To the extent practicable, maximize utilization of IID's transmission capacity in existing easements or right-of-way. Encourage the location of all major transmission lines within designated corridors easements, and rights-of-way.	Consistent	The project involves the construction and operation of new renewable energy infrastructure that would interconnect with existing and approved IID transmission infrastructure thereby maximizing the use of existing facilities.
Seismic and Public Safety Element		
Land Use Planning and Public Safety. Goal 1: Include public health and safety considerations in land use planning.	Consistent	Division 5 of the County Land Use Ordinance has established procedures and standards for development within earthquake fault zones. Per

General Plan Policies	Consistency with General Plan	Analysis
Land Use Planning and Public Safety. Objective 1.1: Ensure that data on geological hazards is incorporated into the land use review process, and future development process.		<p>County regulations, construction of buildings intended for human occupancy which are located across the trace of an active fault are prohibited. An exception exists when such buildings located near the fault or within a designated Special Studies Zone are demonstrated through a geotechnical analysis and report not to expose a person to undue hazard created by the construction.</p> <p>Since the project site is located in a seismically active area, the project is required to be designed in accordance with the CBC for near source factors derived from a design basis earthquake based on a peak ground acceleration of 0.48 gravity. It should be noted that, the project would be remotely operated and would not require any habitable structures on site. In considering these factors in conjunction with mitigation requirements outlined in the impact analysis, the risks associated with seismic hazards would be minimized.</p> <p>A preliminary geotechnical report has been prepared for the proposed project. The preliminary geotechnical report is summarized in Section 3.6 Geology and Soils.</p>
Land Use Planning and Public Safety. Objective 1.3: Regulate development adjacent to or near all mineral deposits and geothermal operations.		
Land Use Planning and Public Safety. Objective 1.4: Require, where possessing the authority, that avoidable seismic risks be avoided; and that measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service.		
Land Use Planning and Public Safety. Objective 1.7: Require developers to provide information related to geologic and seismic hazards when siting a proposed project.		
Emergency Preparedness. Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.		
Emergency Preparedness. Objective 2.2: Reduce risk and damage due to seismic hazards by appropriate regulation.		
Emergency Preparedness. Objective 2.5: Minimize injury, loss of life, and damage to property by implementing all state codes where applicable.		
Emergency Preparedness. Objective 2.8: Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures.		
Water Element		
Protection of Water Resources from Hazardous Materials. Program: The County of Imperial shall make every reasonable effort to limit or preclude the contamination or degradation of all groundwater and surface water resources in the County.	Consistent	Mitigation measures will require that the applicant of the proposed project prepare a site-specific drainage plan and water quality management plan to minimize adverse effects to local water resources.



General Plan Policies	Consistency with General Plan	Analysis
Protection of Water Resources from Hazardous Materials. Program: All development proposals brought before the County of Imperial shall be reviewed for potential adverse effects on water quality and quantity and shall be required to implement appropriate mitigation measures for any significant impacts.	Consistent	See previous response for Water Element above.
Housing Element		
Not Applicable. The proposed project is a solar energy project and does not include the development of housing.		

Source: ICPDS 2008

Note: AQAP – air quality attainment plan; CUP – conditional use permit; EIR – environmental impact report; GV – growth visioning; ICAPCD – Imperial County Air Pollution Control District; IID – Imperial Irrigation District; MW – megawatt; RE – renewable energy; ROW – right-of-way;

County of Imperial Land Use Ordinance

The County’s Land Use Ordinance provides the physical land use planning criteria for development within the jurisdiction of the County. The Land Use Ordinance identifies the permitted and conditional uses within a zoning designation. Uses identified as conditionally permitted require a CUP, which is subject to the discretionary approval of the County Board of Supervisors per a recommendation by the County Planning Commission.

S-2 Zoning. As shown in Figure 3.10-2, the solar energy facility site is located on a privately-owned parcel zoned S-2. Pursuant to Title 9, Division 5, Chapter 19 (County of Imperial 2020), the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

- d) Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:*
 - *Electrical generation plants*
 - *Facilities for the transmission of electrical energy (100-200 kV)*
 - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

Height Limit. Section 90519.07 of the Land Use Ordinance states that the “Maximum height limit in the S-2 zone shall be 40 feet, except for communication towers which are 100 feet.” The height of the components on the solar energy facility site (solar panels, BESS, and substation) would be less than 40 feet.

RE Resources. According to Title 9, Division 17 of the Land Use Ordinance, the purpose of the RE Resources regulations are to “facilitate the beneficial use of renewable energy resources for the general welfare of the people of Imperial County and the State of California; to protect renewable energy resources from wasteful or detrimental uses; and to protect people, property, and the

environment from detriments that might result from the improper use of renewable energy resources” (County of Imperial 2017).

Title 9, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects, with an approved CUP. Uses that are conditionally permitted require a CUP subject to the discretionary approval of the County Board of Supervisors (Board) per a recommendation by the County Planning Commission.

Imperial County Airport Land Use Compatibility Plan

The Imperial County Airport Land Use Compatibility Plan (ALUCP) provides the criteria and policies used by the Imperial County Airport Land Use Commission to assess compatibility between the principal airports in Imperial County and proposed land use development in the areas surrounding the airports. The ALUCP emphasizes review of local general and specific plans, zoning ordinances, and other land use documents covering broad geographic areas.

The nearest public airport is the Brawley Municipal Airport located approximately 9.8 miles southeast of the project site. The project site is outside of the airport compatibility zones of the Brawley Municipal Airport (County of Imperial 1996).

County of Riverside General Plan

The County of Riverside General Plan is a policy document that reflects the County’s vision for the future of Riverside County. The General Plan was comprehensively revised in 2003 and most recently updated in 2021. The General Plan is organized into nine separate elements: Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, Air Quality, Healthy Communities, and Administration. Each General Plan Element is instrumental to achieving the County’s long-term development goals. Each element contains a series of policies that guide the course of action the County must take to achieve the County’s vision for future development (County of Riverside 2021).

In addition, the General Plan divides the County into 19 Area Plans. The purpose of these Area Plans is to provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The Ramon Substation expansion area is located within the WCVAP of the General Plan.

Western Coachella Valley Area Plan

As stated above, the project site is located within the WCVAP of the General Plan. The WCVAP is not a standalone document, but rather an extension of the County of Riverside General Plan. It provides a customized direction specifically for this planning area. The WCVAP provides a description of the location, physical characteristic, and special features, in addition to a land use plan, policies, and exhibits to better understand the physical, environmental, and regulatory characteristics that comprise the area.

Riverside County Airport Land Use Compatibility Plan

The Riverside County ALUCP was adopted in October 2004 and establishes policies applicable to land use compatibility planning in the vicinity of airports throughout the County containing compatibility criteria and maps for the influence areas of individual airports. The ALUCP establishes safety zones that limit building heights, restrict hazardous materials and fuel tanks, bird-attracting industries, etc., from close proximity to airport runways. The Ramon Substation expansion area is located outside of Palm Springs International Airport’s airport influence area (County of Riverside 2005). Thus, the

Ramon Substation expansion would not require review by the Riverside County Airport Land Use Commission (ALUC).

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) received its California state permit in September 2008 and its federal permit in October 2008. The CVMSHCP is a comprehensive habitat conservation-planning program focusing on preservation of species and their associated habitats within the Coachella Valley region of Riverside County. Signatories to the CVMSHCP include the cities of Cathedral City, Coachella, Desert Hot Springs (I-10 annexation area only), Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage as well as Coachella Valley Water District, Imperial Irrigation District, Coachella Valley Association of Governments, and Caltrans. The intent of the CVMSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the CVMSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the CVMSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach.

The CVMSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species. Through agreements with the USFWS and the CDFW, the CVMSHCP designates approximately 27 special-status animal and plant species that receive some level of coverage under the plan. Of the 27 covered species designated under the CVMSHCP, the majority of these species have no additional survey/conservation requirements. In addition, the CVMSHCP provides mitigation for project-specific impacts to these species so that the impacts would be reduced to below a level of significance pursuant to CEQA. Beyond the fully covered species, there are species with additional survey/conservation requirements (Coachella Valley Conservation Commission 2016).

Each participating city or local jurisdiction within the Coachella Valley region will impose a development mitigation fee for new development projects within its jurisdiction. As of July 1, 2023, the current fees for development are:

- \$1,625 for 0 to 8 residential units per acre
- \$675 for 8.1 to 14 residential units per acre
- \$300 for more than 14 residential units per acre
- \$7,225 per acre for commercial/industrial

Please refer to Section 3.4, Biological Resources, for a more thorough discussion of the CVMSHCP.

County of Riverside Zoning Ordinance

The Riverside County Zoning Ordinance is intended to implement the Riverside County General Plan's Land Use Plan. The Zoning Ordinance identifies the permitted and conditional uses within each zoning designation.

3.10.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to land use and planning, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to land use and planning are considered significant if any of the following occur:

- Physically divide an established community
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

Impact Analysis

Impact 3.10-1 Would the project physically divide an established community?

VEGA 6

The VEGA 6 project site is located in a sparsely populated portion of unincorporated Imperial County. The following residences are located in the VEGA 6 project vicinity:

- Residence located 2,725 feet from the northeastern corner of the solar energy facility site
- Residence located approximately 0.85 miles north of solar energy facility site, north of Buck Road/Garvey Road intersection
- Residence located approximately 1 mile north of solar energy facility site and approximately 0.66 mile from the gen-tie line, north of Baughman Road/Garvey Road intersection
- Residence located approximately 1.21 miles north of solar energy facility site, north of Orr Road/Garvey Road intersection and approximately 0.5 mile from the gen-tie line

However, there are no established residential communities located in the vicinity of the project site. The nearest established residential community is located approximately 4 miles northeast in the City of Westmorland. Therefore, implementation of the proposed project would not divide an established community and no impact would occur.

Ramon Substation Expansion

The Ramon Substation expansion area is on approximately 4 acres of vacant and undeveloped land, immediately north of the existing Ramon Substation. Immediately west of the existing Ramon Substation and proposed expansion area is the existing SCE Mirage Substation. The nearest residences to the proposed expansion area are located west of the existing SCE Mirage Substation along Via Las Palmas and the Tri Palm Estates development along Ramon Road to the southwest.

Generally, the physical division of an established community will occur as a result of the construction of a physical feature (such as a highway or railroad tracks), or the removal of a means of access (such as a local road or bridge) which will impair mobility within an existing community or between a community and outlying areas.

The proposed Ramon Substation expansion would not require closures of public roads, which could inhibit vehicular access. The proposed Ramon Substation expansion does not include the construction of a major highway, railroad track, or other linear physical feature that will divide an existing community. Therefore, implementation of the proposed Ramon Substation expansion would not divide an established community and no impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.10-2 Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

VEGA 6

SCAG 2010-2045 RTP/SCS (CONNECT SOCAL)

As noted above, the 2020-2045 RTP/SCS (Connect SoCal) (SCAG 2020) identifies two goals which include reducing GHG emissions to improve air quality (Goal 5), and to promote conservation of natural and agricultural lands (Goal 10).

The 2020-2045 RTP/SCS (Connect SoCal), identifies strategies to support the goal of reducing regional GHG and improve air quality. Strategies include leveraging technological innovations including incorporating solar energy, hydrogen fuel cell power storage, and power generation. Once in operation, the proposed project would contribute to SCAG's goal in reducing GHG emissions and improving air quality.

The 2020-2045 RTP/SCS (Connect SoCal) also discusses the decline of agricultural land as an issue for the economy. According to the farmland maps prepared by the California Department of Conservation, no portion of the VEGA 6 project site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2021). Additionally, the gen-tie route would not result in the conversion of agricultural land. As such, no Prime Farmland, Farmland of Statewide Importance, and Unique Farmland would be converted to non-agricultural uses with project implementation. No impacts due to a conflict with the 2020-2045 RTP/SCS (Connect SoCal) would occur.

COUNTY OF IMPERIAL GENERAL PLAN

The County's General Plan applies to the solar energy facility, battery storage system, gen-tie, and supporting infrastructure associated with the project. An analysis of the project's consistency with the General Plan goals and objectives relevant to the VEGA 6 project is provided in Table 3.10-1. As summarized in Table 3.10-1, the proposed VEGA 6 project would be consistent with the goals and objectives contained in the General Plan.

The County Land Use Ordinance, Division 17, includes the Renewable Energy Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone, and as stated in the Renewable Energy and Transmission Element:

CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. An amendment to the overlay zone would only be approved by the County Board of Supervisors if a future renewable energy project met one of the following two conditions:

- 1) Adjacent to the Existing RE Overlay Zone: An amendment may be made to allow for development of a future renewable energy project located adjacent to the existing RE Overlay Zone if the project:
 - i. Is not located in a sensitive area
 - ii. Would not result in any significant impacts
- 2) “Island Overlay”: An amendment may be made to allow for development of a future renewable energy project that is not located adjacent to the existing RE Overlay Zone if the project:
 - i. Is located adjacent (sharing a common boundary) to an existing transmission source
 - ii. Consists of the expansion of an existing renewable energy operation
 - iii. Would not result in any significant environmental impacts

The solar energy facility site is located outside of the RE Overlay Zone. Therefore, the project applicant is seeking a Zone Change to include/classify the solar energy facility site into the RE Overlay Zone and approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. The solar energy facility site is not located adjacent to an existing RE Overlay Zone; therefore, the VEGA 6 project will need to meet the criteria identified for the “Island Overlay” to obtain approval of an amendment to the RE Overlay Zone. Table 3.10-2 provides an analysis of the project’s consistency with the “Island Overlay” criteria.

With approval of the General Plan Amendment and Zone Change, the project applicant will be able to request for approval of a CUP to allow the construction and operation of the proposed solar facility.

Table 3.10-2. Project Consistency with “Island Overlay” Criteria

Criteria	Criteria Met?
Is located adjacent (sharing a common boundary) to an existing transmission source?	As described in Chapter 2, the VEGA 6 project includes a gen-tie line that would connect to IID’s existing 161 kV “L” Line. The gen-tie route would be approximately 4 miles long.
Consists of the expansion of an existing renewable energy operation?	As described in Chapter 2, the VEGA 6 project includes a gen-tie line that would connect to IID’s existing 161 kV “L” Line. The gen-tie route would be approximately 4 miles long. The proposed VEGA 6 project would be capable of generating up to 80 MW of solar energy and include a 160 MW BESS, thereby expanding renewable energy generation in the area.



Criteria	Criteria Met?
Would not result in any significant environmental impacts?	As detailed in Sections 3.2 through 3.17 of this EIR, no unavoidable or unmitigable significant impacts were identified. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant. Therefore, the proposed VEGA 6 project would not result in a residual significant impact.

Note: EIR – environmental impact report; MW – megawatt; RE – renewable energy

COUNTY OF IMPERIAL LAND USE ORDINANCE

Development of the solar energy facility and supporting infrastructure is subject to the County’s zoning ordinance. The solar energy facility site is located on privately-owned vacant land on a single parcel (APN 034-160-002) zoned S-2. Pursuant to Title 9, Division 5, Chapter 19 (County of Imperial 2020), the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

- d) Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:*
 - *Electrical generation plants*
 - *Facilities for the transmission of electrical energy (100-200 kV)*
 - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

Therefore, with approval of a CUP, the proposed project would not conflict with the County’s zoning ordinance.

IMPERIAL COUNTY AIRPORT LAND USE COMPATIBILITY

As previously discussed above, the nearest public airport is the Brawley Municipal Airport located approximately 9.8 miles southeast of the project site. According to Figure 3A (Compatibility Map – Brawley Municipal Airport) of the ALUCP, no portion of the VEGA 6 project site is located within the Brawley Municipal Airport land use compatibility zones (County of Imperial 1996). Therefore, the proposed VEGA 6 project would not conflict with the Imperial County ALUCP, and no significant impact would occur.

DESERT RENEWABLE ENERGY CONSERVATION PLAN

The DRECP was developed to facilitate the timely and streamlined permitting of renewable energy projects. The BLM designates Renewable Energy DFAs which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. Transmission development and operation will occur in previously designated corridors and other identified areas, both inside and outside the DFAs.

As shown in Figure 3.10-4, the western portion of the gen-tie line is located within a Renewable Energy DFA. Therefore, the proposed gen-tie line would be an allowable use and would not conflict with the DRECP.

Ramon Substation Expansion

RIVERSIDE COUNTY ZONING ORDINANCE

The Ramon Substation expansion area is zoned General Residential Zone (R-3). The Riverside County Zoning Ordinance does not identify public utilities as a permitted or conditional use in R-3. However, per Section 17.208.010, facilities for the storage or transmission of electrical energy is permitted with a Public Use Permit:

Facilities for the storage or transmission of electrical energy where the County is not preempted by law from exercising jurisdiction. This subsection shall take precedence over and supersede any conflicting provision in any zone classification. Facilities for the storage or transmission of electrical energy shall not be subject to the development standards of the zone classification in which they are located.

The existing Ramon Substation is currently operating under an approved Public Use Permit. IID would apply for an amendment to its Public Use Permit for the proposed Ramon Substation expansion. With approval of the Public Use Permit amendment, the proposed expansion would not conflict with the Riverside County Zoning Ordinance and no impact would occur.

RIVERSIDE COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

The Ramon Substation expansion area is located outside of Palm Springs International Airport's airport influence area (County of Riverside 2005). Therefore, the proposed expansion would not conflict with the Riverside County ALUCP, and no impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.10.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. No impacts on land use and planning are anticipated to occur during decommissioning and restoration of the project site. Decommissioning and restoration would not physically divide an established community or conflict with any applicable land use plan, policy, or regulation. Therefore, no impact is identified and no mitigation is required.



Residual

With the approval of a CUP and reclamation plan to address post-project decommissioning, the project would generally be consistent with applicable federal, state, regional, and local plans and policies. Based on these circumstances, the project would not result in any residual significant and unmitigable land use impacts.

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3.11 Noise and Vibration

This section identifies the ambient noise environment for the VEGA 6 project area and Ramon Substation expansion area and describes applicable federal, state, and local regulations, potential project-related noise and vibration impacts, and recommended mitigation measures to avoid or reduce potential impacts of the proposed VEGA 6 project and Ramon Substation expansion. Information contained in this section for the VEGA 6 project is summarized from the *Noise Impact Assessment for the VEGA SES 6 Solar and Battery Storage Project* prepared by ECORP Consulting, Inc. This report is included in Appendix I of this EIR.

3.11.1 Existing Conditions

Noise is defined as unwanted sound. Pressure waves traveling through air exert a force registered by the human ear as sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level), which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Consequently, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 hertz and above 5,000 hertz to imitate the human ear's decreased sensitivity to low and extremely high frequencies. This emulation of the human ear's frequency sensitivity is referred to as A-weighting and is expressed in units of dBA. Frequency A weighting follows an international standard method of frequency de-emphasis and is typically applied to community noise measurements. In practice, the specific sound level from a source is measured using a meter incorporating an electrical filter corresponding to the A-weighting curve. All noise levels reported are A-weighted unless otherwise stated.

The dB scale is logarithmic and an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound.

Typical noise levels associated with common noise sources are depicted in Figure 3.11-1.

Figure 3.11-1. Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
<u>Jet Fly-over at 300m (1000 ft)</u>	110	<u>Rock Band</u>
<u>Gas Lawn Mower at 1 m (3 ft)</u>	100	
<u>Diesel Truck at 15 m (50 ft), at 80 km (50 mph)</u>	90	<u>Food Blender at 1 m (3 ft)</u>
<u>Noisy Urban Area, Daytime</u>	80	<u>Garbage Disposal at 1 m (3 ft)</u>
<u>Gas Lawn Mower, 30 m (100 ft)</u>	70	<u>Vacuum Cleaner at 3 m (10 ft)</u>
<u>Commercial Area</u>		<u>Normal Speech at 1 m (3 ft)</u>
<u>Heavy Traffic at 90 m (300 ft)</u>	60	
<u>Quiet Urban Daytime</u>	50	<u>Large Business Office</u>
		<u>Dishwasher Next Room</u>
<u>Quiet Urban Nighttime</u>	40	<u>Theater, Large Conference Room (Background)</u>
<u>Quiet Suburban Nighttime</u>		<u>Library</u>
<u>Quiet Rural Nighttime</u>	30	<u>Bedroom at Night,</u>
	20	<u>Concert Hall (Background)</u>
	10	<u>Broadcast/Recording Studio</u>
<u>Lowest Threshold of Human Hearing</u>	0	<u>Lowest Threshold of Human Hearing</u>

Source: Appendix I of this EIR

Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (Appendix I of this EIR).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm generally reduces noise levels by 10 to 20 dBA. However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction of 35 dBA or greater. To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the “line of sight” between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces (Appendix I of this EIR).

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more. Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typically residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound (Appendix I of this EIR).

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise.

The A weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Existing Ambient Noise Levels

VEGA 6

The most common noise in the VEGA 6 project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) traversing SR-78 and the various noises associated with agricultural equipment and vehicles traversing the various county paved and unpaved roadways. Traffic moving along streets produces a sound level that remains relatively constant and is part of the minimum ambient noise level in the project vicinity.

In order to quantify existing ambient noise levels in the VEGA 6 project area, ECORP Consulting, Inc. conducted four short-term noise measurements on July 14, 2021. The noise measurement sites were representative of typical existing noise exposure within the VEGA 6 project vicinity during the daytime. The 15-minute measurements were taken between 10 a.m. and 11:40 a.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. As shown in Table 3.11-1, the existing noise levels in the project vicinity range from 39.6 to 53.3 dBA L_{eq} .



Table 3.11-1. Existing (Baseline) Noise Measurements

Location No.	Location	Leq dBA	L _{min} dBA	L _{max} dBA	Time
1	Intersection of Garvey Road and Baughman Road	53.3	30.5	73.8	10:56 a.m. - 11:11 a.m.
2	North of Garvey Road and Orr Road Intersection	39.6	32.7	51.1	10:30 a.m. – 10:45 a.m.
3	Northwest Corner of Garvey Road and Buck Road Intersection	50.1	39.3	64.3	11:25 a.m. – 11:40 a.m.
4	West of Garvey Road on Shoulder, 0.5 Mile South of SR-78	45.4	30.6	58.4	10:00 a.m. – 10:15 a.m.

Source: Appendix I of this EIR

Ramon Substation Expansion

The most common noise in the vicinity of the Ramon Substation expansion area is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) traversing local roadways. Traffic moving along roadways produces a sound level that remains relatively constant and is part of the minimum ambient noise level in the vicinity.

Noise Sensitive Land Uses

VEGA 6

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

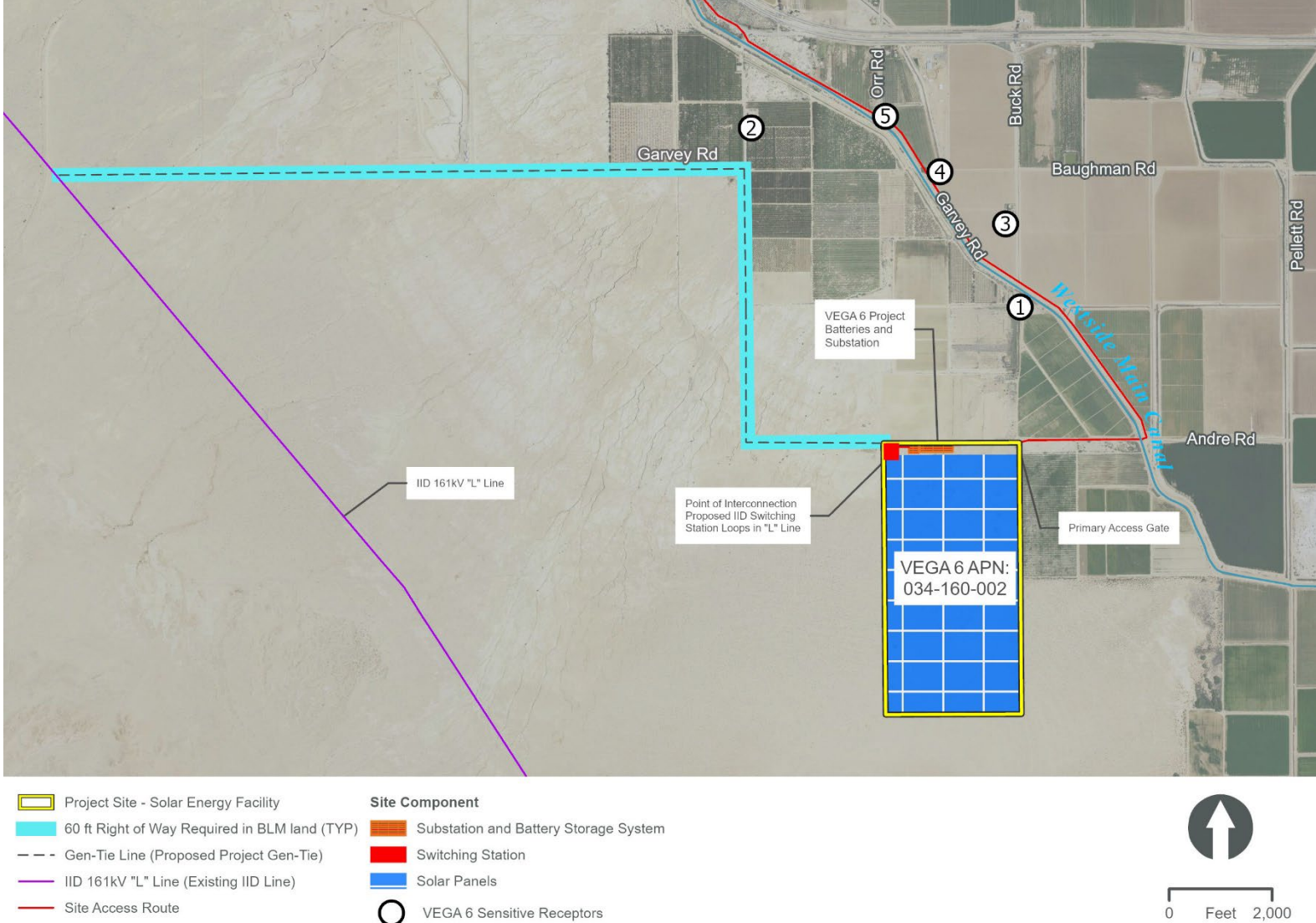
The nearest sensitive receptors to the VEGA 6 project site are depicted in Figure 3.11-2. The nearest existing noise-sensitive land use to the project site is a single-family residence located approximately 2,725 feet north of the northeastern corner of the solar energy facility site, just south of Garvey Road (labeled 1 in Figure 3.11-2). During construction occurring off-site along the gen-tie transmission line route, the nearest sensitive receptor would be 970 feet away from the gen-tie transmission line (labeled 2 in Figure 3.11-2) (Appendix I of this EIR).

Additional sensitive receptors near the project site include the following:

- Residence located approximately 0.85 mile north of the solar facility site, north of Buck Road/Garvey Road intersection
- Residence located approximately 1 mile north of solar facility site, north of Baughman Road/Garvey Road intersection
- Residence located approximately 1.21 miles north of solar facility site, north of Orr Road/Garvey Road intersection

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Figure 3.11-2. Nearest Sensitive Receptors to VEGA 6 Project Site



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Ramon Substation Expansion

Sensitive receptors in the vicinity of the proposed Ramon Substation expansion area are residences located west of the existing SCE Mirage Substation along Via Las Palmas and the Tri Palm Estates development along Ramon Road to the southwest. The nearest sensitive receptors to the expansion area are the single-family residences located approximately 0.2 miles to the west on Via Las Palmas.

Vibration

Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (Appendix I of this EIR).

Table 3.11-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 3.11-2 is considered very unlikely to cause damage to buildings of any type.

Table 3.11-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006 – 0.019	64 – 74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4 – 0.6	98 - 104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Appendix I of this EIR

Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance. Groundborne vibration levels associated with typical construction equipment at 25 feet distant are summarized in Table 3.11-3.

Table 3.11-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (Inches per Second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Appendix I of this EIR

Proximity to Airports

VEGA 6

The VEGA 6 project site is not located within 2 miles of a public airport or a private airstrip. The nearest airport is the Brawley Municipal Airport located approximately 9.8 miles east of the VEGA 6 project site.

Ramon Substation Expansion

The nearest public airport is the Palm Springs International Airport located approximately 7 miles north of the Ramon Substation expansion area.

3.11.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR, Part 205, Subpart B. The federal truck passersby noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers. In addition to noise standards for individual vehicles, under regulations established by the U.S. Department of Transportation's FHWA, noise abatement must be considered for certain federal or federally-funded projects. Abatement is an issue for new highways or significant modification of an existing freeway. The agency must determine if the project would create a substantial increase in noise or if the predicted noise levels approach or exceed the Noise Abatement Criteria.

State

The state has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (CCR, Title 24). The noise insulation standards set forth an interior standard of L_{dn} 45 dB for any habitable room. They also require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than L_{dn} 60 dB. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

The State of California General Plan Guidelines, published by the OPR in 1998, also provides guidance for the acceptability of projects within specific CNEL/ L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The County of Imperial has utilized the adjustment factors provided and has modified the state's Land Use Compatibility standards for the purpose of implementing the Noise Element of its General Plan. Table 3.11-4 summarizes the acceptable and unacceptable community noise exposure limits for various land use categories as currently defined by the State of California. These community noise exposure limits are also incorporated into the County of Imperial General Plan Noise Element.

Local

Imperial County General Plan

The County of Imperial General Plan Noise Element identifies and defines existing and future environmental noise levels from sources of noise within or adjacent to the County of Imperial;

establishes goals and objectives to address noise impacts, and provides Implementation Programs to implement adopted goals and objectives.

Table 3.11-5 summarizes the VEGA 6 project's consistency with the applicable General Plan noise policies. While this EIR analyzes the VEGA 6 project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

The County of Imperial has established the following interior noise standards to be considered in acoustical analyses:

- The interior noise standard for detached single family dwellings shall be 45 dB CNEL.
- The interior noise standard for schools, libraries, offices and other noise-sensitive areas where the occupancy is normally only in the day time, shall be 50 dB averaged over a 1-hour period ($L_{eq}(1)$).

Table 3.11-4. Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure – L_{dn} or CNEL (dBA)							
	50	55	60	65	70	75	80	
Residential	Blue	Blue	Blue	Blue				
				Green	Green	Green		
						Yellow	Yellow	
								Red
Transient Lodging – Motel, Hotel	Blue	Blue	Blue	Blue	Blue			
				Green	Green	Green	Green	
							Yellow	Yellow
Schools, Libraries, Churches, Hospitals, Nursing Homes	Blue	Blue	Blue	Blue				
				Green	Green	Green		
						Yellow	Yellow	Yellow
								Red
Auditorium, Concert Hall, Amphitheaters								
	Green	Green	Green	Green	Green	Green		
						Yellow	Yellow	Yellow
Sports Arena, Outdoor Spectator Sports								
	Green	Green	Green	Green	Green	Green		
							Yellow	Yellow
Playgrounds, Neighborhood Parks	Blue	Blue	Blue	Blue	Blue			
						Yellow	Yellow	
								Red



Land Use Category	Community Noise Exposure – L _{dn} or CNEL (dBA)							
	50	55	60	65	70	75	80	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
							Yellow	Yellow
								Red
Office Buildings, Business, Commercial and Professional	Blue	Blue	Blue	Blue	Blue			
					Green	Green	Green	
							Yellow	Yellow
Industrial, Manufacturing, Utilities, Agriculture	Blue	Blue	Blue	Blue	Blue	Blue		
						Green	Green	Green
							Yellow	Yellow
Blue	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
Green	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.						
Yellow	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.						
Red	Clearly Unacceptable	New construction or development generally should not be undertaken.						

Source: County of Imperial 2008

CNEL – community noise equivalent level; dBA – a-weighted decibel; L_{dn} – day-night average sound level

Table 3.11-5. Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Noise Element		
<p>1. Acoustical Analysis of proposed projects. The County shall require the analysis of proposed discretionary projects, which may generate excessive noise, or which may be impacted by existing excessive noise levels.</p>	<p>Consistent</p>	<p>Under existing conditions, the ambient noise environment is characterized as relatively quiet with peak noise levels influenced by vehicular traffic and off-site agricultural operations. Given that the VEGA 6 project is not characterized as a sensitive land use, project facilities would be unaffected by existing noise levels. The project facilities would be constructed within areas zoned for agricultural use with noise levels up to 70 dBA identified as normally acceptable. Project operations are expected to produce noise levels that would not exceed County standards and, hence impacts are expected to be less than significant. This EIR provides an analysis of the potential short- and long-term noise impacts of the project. As discussed, short-term and long-term noise levels were found to be less than significant.</p>
<p>2. Noise/Land Use Compatibility. Where acoustical analysis of a proposed project is required, the County shall identify and evaluate potential noise/land use conflicts that could result from the implementation of the project. Projects which may result in noise levels that exceed the “Normally Acceptable” criteria of the Noise/Land Use Compatibility Guidelines shall include mitigation measures to eliminate or reduce the adverse noise impacts to an acceptable level.</p>	<p>Consistent</p>	<p>Noise levels associated with project operations would not exceed noise limits for the S-2 zone. See Section 3.11.3 Existing Conditions for additional discussion.</p>
<p>4. Interior Noise Environment. Where acoustical analysis of a proposed project is required, the County shall identify and evaluate projects to ensure compliance to the California (Title 24) interior noise standards and the additional requirements of this Element.</p>	<p>Consistent</p>	<p>This EIR provides an analysis of the potential short- and long-term noise impacts of the proposed VEGA 6 project. As discussed, short-term and long-term noise levels were found to be less than significant.</p> <p>Noise levels associated with project operations would be unlikely to exceed noise limits for the S-2 zone.</p>



General Plan Policies	Consistency with General Plan	Analysis
5. New Noise Generating projects. The County shall identify and evaluate projects which have the potential to generate noise in excess of the Property Line Noise Limits. An acoustical analysis must be submitted which demonstrates the project's compliance.	Consistent	Please refer to above analysis for Interior Noise Environment for discussion.
6. Projects Which Generate Off-site Traffic Noise. The acoustical analysis shall identify and evaluate projects which will generate traffic and increase noise levels on off-site roadways. If the project site has the potential to cause a significant noise impact on sensitive receptors along those roadways, the acoustical analysis report shall consider noise reduction measures to reduce the impact to a level less than significant.	Consistent	As described in Chapter 2, Project Description, the project would involve a minimal number of operational related vehicle trips and therefore, is unlikely to substantially increase traffic noise levels on local roadways.

Source: County of Imperial 2015b
 Note: dBA – a-weighted decibel

Construction Noise Standards

Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB Leq, when averaged over an eight (8) hour period, and measured at the nearest sensitive receptor. This standard assumes a construction period, relative to an individual sensitive receptor of days or weeks. In cases of extended length construction times, the standard may be tightened so as not to exceed 75 dB Leq when averaged over a one (1) hour period.

Construction equipment operation are required to be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. In cases of a person constructing or modifying a residence for himself/herself, and if the work is not being performed as a business, construction equipment operations may be performed on Sundays and holidays between the hours of 9:00 a.m. and 5:00 p.m. Such non-commercial construction activities may be further restricted where disturbing, excessive, or offensive noise causes discomfort or annoyance to reasonable persons of normal sensitivity residing in an area.

County of Imperial Noise Ordinance

Noise generating sources in Imperial County are regulated under the County of Imperial Codified Ordinances, Title 9, Division 7 (Noise Abatement and Control). Noise limits are established in Chapter 2 of this ordinance. Under Section 90702.00 of this rule, 70 dB is the normally acceptable limit for the Industrial, Manufacturing, Utilities, and Agricultural category of land use (Table 3.11-6).

Table 3.11-6. Imperial County Exterior Noise Standards

Land Use Zone	Time Period	Noise Level, L _{eq} 1- hour
R-1 Residential	Night (10 p.m. to 7 a.m.) Day (7 a.m. to 10 p.m.)	45 dBA 50 dBA
R-2 Residential	Night (10 p.m. to 7 a.m.) Day (7 a.m. to 10 p.m.)	50 dBA 55 dBA
R-3, R-4, and all other residential	Night (10 p.m. to 7 a.m.) Day (7 a.m. to 10 p.m.)	50 dBA 55 dBA
Commercial	Night (10 p.m. to 7 a.m.) Day (7 a.m. to 10 p.m.)	55 dBA 60 dBA
Manufacturing, other industrial, agricultural, and extraction industry	Anytime	70 dBA
Industrial	Anytime	75 dBA

Source: Imperial County Municipal Code Section 90702.00.

Note: dBA – a-weighted decibel; L_{eq} – equivalent sound level

Riverside County General Plan Noise Element

The County of Riverside has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the County of Riverside from excessive exposure to noise. The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect County of Riverside residents from excessive noise, the Noise Element contains the following policies related to the proposed Ramon Substation expansion:

- **N 1.1:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.
- **N 1.3:** Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL:
 - Schools
 - Hospitals
 - Rest Homes
 - Long-Term Care Facilities
 - Mental Care Facilities
 - Residential Uses
 - Libraries
 - Passive Recreation Uses
 - Places of Worship
- **N 1.5:** Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

- **N 4.1:** Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:
 - a. 45 dBA 10-minute L_{eq} between 10:00 p.m. and 7:00 a.m.;
 - b. 65 dBA 10-minute L_{eq} between 7:00 a.m. and 10:00 p.m.
- **N 13.1:** Minimize the impacts of construction noise on adjacent uses within acceptable standards.
- **N 13.2:** Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse impacts on surrounding areas.
- **N 14.1:** Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.

Riverside County Construction Noise Standards

To control noise impacts associated with the construction of the proposed Ramon Substation expansion, the County of Riverside has established limits to the hours of operation. Section 9.52.020 of the County's Noise Regulation ordinance indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. Neither the County's General Plan nor Municipal Code establishes numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on the FTA *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use.

Construction Vibration Standards

Construction activity can result in varying degrees of groundborne vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

The County of Riverside does not have vibration standards, but the County's General Plan Noise Element does contain the human reaction to typical vibration levels. Typical vibration levels between

10 and 30 Hertz with peak particle velocity of 0.0787 inches per second (in/sec) are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy N 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 in/sec over the range of one to 100 Hz.

Riverside County Airport Land Use Compatibility Plan

The Riverside County ALUCP was adopted in October 2004 and establishes policies applicable to land use compatibility planning in the vicinity of airports throughout the County containing compatibility criteria and maps for the influence areas of individual airports. The ALUCP establishes safety zones that limit building heights, restrict hazardous materials and fuel tanks, bird-attracting industries, etc., from close proximity to airport runways. Chapter 2, Countywide Policies of the ALUCP, establishes Policy 4.1.4, which identifies the maximum CNEL considered normally acceptable for new residential land uses in the vicinity of an airport as 60 dBA CNEL. Further, Policy 4.1.6 of the ALUCP identifies an interior noise level limit of 45 dBA CNEL with windows closed for residential homes affected by aircraft-related noise.

3.11.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to noise and vibration, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to noise and vibration are considered significant if any of the following occur:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generate excessive groundborne vibration or groundborne noise levels.
- For a project located in the vicinity of a private airstrip of an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Methodology

VEGA 6

Noise generated by the proposed VEGA 6 project will consist of: (1) short duration noise resulting from construction activities and (2) noise during normal facility operations. Vibration from the proposed VEGA 6 project would only result during construction. Construction activities would take place only during daytime hours. An evaluation was performed of expected noise and vibration and compared to regulatory requirements.

Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the project have been evaluated utilizing typical groundborne vibration levels associated with construction



equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures and typically applied criteria for structural damage and human annoyance (Appendix I of this EIR).

In order to estimate the worst-case operational noise levels that may occur at the nearest noise-sensitive receptor, onsite operational noise levels have been calculated with the SoundPLAN 3D noise model (which predicts noise propagation from a noise source based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings, and barriers), coupled with noise measurements that were taken by ECORP at an existing solar energy generation facility. Specifically, ECORP conducted a 30-minute reference noise measurement within the IVC solar generation facility in Imperial County with a Larson Davis SoundExpertLxT precision sound-level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. This reference measurement identified an ambient noise environment of 47.1 dBA at the existing solar energy generation facility (see Attachment D). Therefore, a noise level of 47.1 dBA was employed as the reference noise level in the SoundPLAN 3D noise model to determine noise-level propagation associated with project operations.

Ramon Substation Expansion

Noise generated by the proposed Ramon Substation expansion will consist of: (1) short duration noise resulting from construction activities and (2) noise during normal facility operations. Vibration from the proposed VEGA 6 project would only result during construction. Construction activities would take place only during daytime hours. An evaluation was performed of expected noise and vibration and compared to regulatory requirements.

Impact Analysis

Impact 3.11-1 Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

VEGA 6

CONSTRUCTION

Onsite Solar and Battery Storage Facilities Construction Noise

Construction noise associated with the proposed VEGA 6 project would be temporary and would vary depending on the nature of the activities being performed. Noise generated from the proposed VEGA 6 project would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic

movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site (Appendix I of this EIR).

The nearest sensitive receptor is located approximately 2,725 feet north of the northeastern corner of the solar energy facility site project site. As previously described, the County’s General Plan Noise Element states construction equipment operation shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. No commercial construction operations are permitted on Sundays or holidays. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq} , when averaged over an eight-hour period, and measured at the nearest sensitive receptor. This standard, established by the County to prevent physical and mental damage consistent with exposure to excessive noise, assumes a construction period, relative to an individual sensitive receptor of days or weeks.

The anticipated short-term construction noise levels generated for the necessary construction equipment during the onsite solar and battery storage facility component of the proposed VEGA 6 project are presented in Table 3.11-7. As shown in Table 3.11-7, no individual or cumulative pieces of construction equipment would exceed the 75 dBA Imperial County construction noise standard during any phase of construction at the nearest noise-sensitive receptor. Therefore, the proposed VEGA 6 project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the VEGA 6 project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies during construction. Impacts would be less than significant.

Table 3.11-7. Construction Average Noise Levels at the Nearest Receptor – Solar/Battery Storage Facility

Combined Equipment	Construction Noise Level (dBA L_{eq}) at:		
	Estimated Exterior Construction Noise Level at Nearest Residence	Construction Noise Standards	Exceed Standards?
Site Preparation	52.9	75	No
Grading	53.5	75	No
Construction	53.4	75	No
Paving	51.8	75	No

Source: Appendix I of this EIR

Gen-Tie Transmission Line Construction Noise

Construction noise associated with the VEGA 6 project’s gen-tie transmission line route would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for construction activities as well as construction vehicle traffic on area roadways.

Nearby noise-sensitive land uses consist of a scattering of single-family residential units located north and east of the gen-tie line route, with the closest residence located along Garvey Road, approximately 970 feet north of the gen-tie line route. As previously described, the County’s General Plan Noise Element states construction equipment operation shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. No commercial construction operations are permitted on Sundays or holidays. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq} , when averaged over an eight-hour period, and measured at the nearest sensitive receptor.



The anticipated short-term construction noise levels generated for the necessary construction equipment during the gen-tie line component of the proposed VEGA 6 project are presented in Table 3.11-8. As shown in Table 3.11-8, construction of the gen-tie line would not exceed the significance threshold of 75 dBA at the nearest sensitive receptor. Therefore, the proposed VEGA 6 project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies during construction. Impacts would be less than significant.

Table 3.11-8. Construction Noise Levels at Nearest Receptor – Gen-Tie Line

Combined Equipment	Estimated Exterior Noise Level at Nearest Sensitive Receptor (970 feet)	Construction Noise Standards (dBA L _{eq})	Exceed Standards?
Grading	55.1	75	No
Construction	65.4	75	No

Source: Appendix I of this EIR

OPERATION

Off-Site Traffic Noise

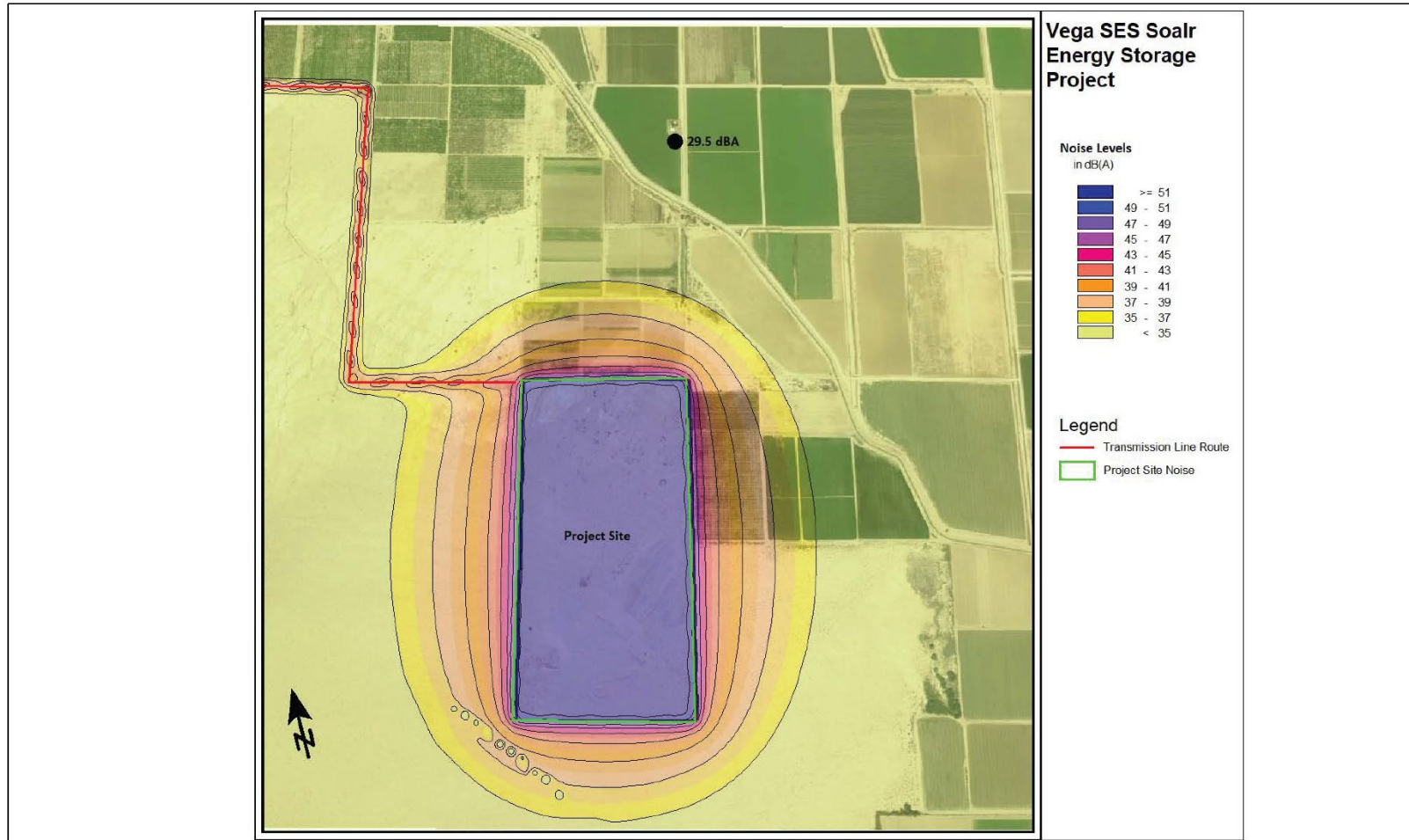
Project operations would result in minimal additional traffic on adjacent roadways. The only visitors to the site would be that of repair or maintenance workers, whose presence at the site would only be necessary infrequently. Up to two to three people would be contracted (part-time) to perform all routine and emergency operational and maintenance activities. Such activities include inspections, equipment servicing, site and landscape clearing, and periodic washing of the PV modules if needed (up to two times per year) to maintain power generation efficiency. According to the *Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol*, doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference) (Appendix I of this EIR). The proposed VEGA 6 project would not result in a doubling of traffic, therefore, its contribution to existing traffic noise would not be perceptible.

Project Operations Noise Sources

The main stationary operational noise associated with the VEGA 6 project would be from the proposed transformers, inverters, substation, and gen-tie line. The main stationary operational noise associated with the offsite gen-tie line would be Corona Discharge. Corona is the electrical breakdown of the air into charged particles, which may result in audible noise. During Corona activity, the transmission line sometimes generate a small amount of sound energy. Audible noise generated by Corona discharge is typically described as a crackling or humming sound. Audible Corona noise levels for a typical 230-kV line are approximately 25 dBA at locations within approximately 25 feet of the power line corridor, or 51.1 dBA at the source (Appendix I of this EIR). Project operations have been calculated using the SoundPLAN 3D noise model. As previously stated, a noise level of 47.1 dBA was employed as the reference noise level in the SoundPLAN 3D noise model to determine noise-level propagation associated with the project operations. The results of this model can be found in Appendix I of this EIR. Table 3.11-9 and Figure 3.11-3 shows the predicted project noise levels at the nearest noise-sensitive land uses in the project vicinity, as predicted by SoundPLAN. As shown in Table 3.11-9, the VEGA 6 project’s operational noise would not exceed the County’s daytime or nighttime standards. Therefore, impacts would be less than significant.

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Figure 3.11-3. SoundPLAN Noise Map – Modeled Operational Noise Levels



Source: Appendix I of this EIR

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Table 3.11-9. Modeled Operational-Noise at Nearest Sensitive Receptor

Location	Modeled Noise Attributed to Project (L _{eq} dBA)	County Daytime Standard (L _{eq} dBA)	County Nighttime Standard (L _{eq} dBA)	Exceed Standard?
1) Residence located north of project site, across aqueduct from Buck Road/Garvey Road intersection	29.5	50.0	45.0	No

Source: Appendix I of this EIR

Ramon Substation Expansion

CONSTRUCTION

Construction noise, although temporary, can be a source of concern for sensitive receptors, such as nearby residences. The construction of the Ramon Substation expansion is estimated to take 180 working days and would begin in 2024. Construction of the proposed expansion will require the use of heavy equipment that may be periodically audible at off-site locations. Received sound levels will fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, sound from construction equipment will vary dependent on the construction phase and the number and class of equipment at a location at any given time.

The noisiest activities for the proposed expansion would be during the site clearing and grading phases when graders, loaders, and dozers would be used. The construction equipment associated with these activities would generate noise levels of up to 85 dBA L_{max} at 50 feet. Although unlikely, two pieces of construction equipment could operate at their maximum noise level simultaneously. For every doubling of acoustic energy the noise level, measured in dBA, increases by 3. Therefore, two pieces of equipment, each operating at a noise level of 85 dBA, would generate a noise level of 88 dBA L_{max} at 50 feet. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. The nearest sensitive receptors to the expansion area are the single-family residences located approximately 0.2 miles (1,056 feet) to the west on Via Las Palmas. Due to the distance of the nearest sensitive receptor (1,056 feet) and sound level attenuation with distance, construction noise would not exceed FTA’s daytime exterior construction noise level of 80 dBA L_{eq}. Furthermore, Section 9.52.020 of the Riverside County’s Noise Regulation ordinance indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. The proposed Ramon Substation expansion’s potential noise impacts during construction would be less than significant.

OPERATION

The proposed transformers at the substation will generate only minimal operational noise and anticipated to be similar to existing operations. Operation and cooling fans may emit noticeable noise within the enclosed substation. However, no sensitive noise receptors are located immediately adjacent to the substation site. Therefore, a less than significant impact is identified for this issue area.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.11-2 Would the project generate excessive groundborne vibration or groundborne noise levels?

VEGA 6

CONSTRUCTION

Construction on the VEGA 6 project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Pile drivers would be necessary during project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with typical construction equipment at 25 feet distant are summarized in Table 3.11-3.

The County of Imperial does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the project site (Appendix I of this EIR). The nearest structure of concern to the construction site, with regard to groundborne vibrations, is an abandoned building located 1,282 feet from the VEGA 6 project site boundary.

Table 3.11-10 presents the expected project related vibration levels from the nearest structure (1,282 feet from VEGA 6 project site boundary). As shown in Table 3.11-10, vibration as a result of project construction activities would not exceed 0.2 PPV at the nearest structure. Therefore, project construction would not exceed the recommended Caltrans threshold, and impacts would be considered less than significant.



Table 3.11-10. Construction Vibration Levels at Nearest Structure

Receiver PPV Levels (in/sec) ¹					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Pile Driver	Vibratory Roller			
0.0002	0.0002	0.0001	0.0004	0.0006	0.0006	0.2	No

Source: Appendix I of this EIR

Notes: ¹Based on the Vibration Source Levels of Construction Equipment on Table 5-5 of Appendix I of EIR. Distance to the nearest structure of concern is approximately 1,282 feet measured from project site boundary.

OPERATION

Project operations would not include the use of any large-scale stationary equipment that would result in excessive vibration levels. Therefore, no groundborne vibration impacts would occur during operation of the VEGA 6 project.

Ramon Substation Expansion

CONSTRUCTION

The proposed Ramon Substation expansion’s construction activities have the potential to generate low levels of groundborne vibration as the operation of heavy construction equipment (graders, dozers, etc.) generates vibrations that propagate through the ground and diminishes in intensity with distance from the source. As such, the existing sensitive uses (i.e., nearby residences) located near the expansion area could be exposed to excessive groundborne vibration or groundborne noise levels during the project’s construction activities. Site ground vibrations from construction activities very rarely reach the levels that can damage structures, but they may be perceived in buildings very close to a construction site. No pile-driving or blasting activities would be required for construction of the proposed project components. The various PPV for several types of construction equipment, along with their corresponding root mean square (RMS) velocities (in vibration decibels [VdB]), that can generate perceptible vibration levels are identified in Table 3.11-11. Based on the information presented in Table 3.11-1, vibration velocities could reach as high as approximately 0.089 inch-per-second PPV at 25 feet from the source activity, depending on the type of construction equipment in use. This corresponds to an RMS velocity level of 87 VdB at 25 feet from the source activity. The construction equipment used for the Ramon Substation expansion would generally consist of off-road construction equipment such as dozers, graders, and scrapers. As shown in Table 3.11-1, even at 100 feet, the vibration from equipment such as a large bulldozer would be 0.011, which is considered to be barely perceptible under Caltrans’ criteria. Therefore, because the nearest off-site sensitive receptor to the project site is 1,056 feet away, the vibration levels at this nearest receptor would be attenuated and would not exceed any of Caltrans’ vibration criteria related to building damage or human perception/annoyance. As such, vibration impacts would be less than significant.

Table 3.11-11. Vibration Source Levels for Construction Equipment

Equipment	Approximate PPV (in/sec)					Approximate RMS (VdB)				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Caisson Drilling	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

Source: FTA, 2018.

OPERATION

Long-term operation is not anticipated to result in perceptible levels of groundborne vibration or groundborne noise. Therefore, a less than significant impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.11-3 *For a project located in the vicinity of a private airstrip of an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

VEGA 6

The VEGA 6 project site is not located within 2 miles of a public airport or a private airstrip. As previously mentioned, the nearest airport is Brawley Municipal Airport located approximately 9.8 miles east of the VEGA 6 project site. As identified in the Imperial County Airport Land Use Compatibility Maps, the VEGA 6 project site is located outside of the noise contours of the Brawley Municipal Airport. Therefore, the VEGA 6 project would not expose people to excessive airport noise levels and no impact is identified.

Ramon Substation Expansion

The nearest public airport is the Palm Springs International Airport located approximately 7 miles north of the Ramon Substation expansion area. According to the Noise Compatibility Contours for the Palm Springs International Airport, the Ramon Substation expansion area is located outside of the noise contours of the Palm Springs International Airport. Therefore, the proposed Ramon Substation expansion would not expose people to excessive airport noise levels and no impact is identified.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.11.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Decommissioning or restoration of the project site would use similar equipment to what was evaluated in the construction noise and vibration analysis. Adhering to the County's construction hours would reduce the noise and vibration impacts to below a level of significance.

Residual

Adhering to the County's construction hours would reduce the noise and vibration impacts to below a level of significance.

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3.12 Public Services

This section includes an evaluation of potential impacts for identified public services that could result from implementation of the proposed VEGA 6 project and Ramon Substation expansion. Public services typically include fire protection, law enforcement, schools, and other public facilities such as parks, libraries, and post offices. Each subsection includes descriptions of existing facilities, service standards, and potential environmental impacts resulting from implementation of the proposed VEGA 6 project and Ramon Substation expansion, and mitigation measures where appropriate. Section 3.15, Utilities/Service Systems, of this EIR evaluates impacts related to water supply, wastewater, and other utilities. The impact assessment provides an evaluation of potential adverse effects to public services based on criteria derived from the CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description.

The IS/NOP prepared for this EIR determined that the VEGA 6 project would not result in impacts on schools, parks and other public facilities (libraries and post offices). Therefore, these issue areas will not be discussed further and are included in Chapter 6, Effects Found Not Significant, of this EIR. The IS/NOP is included in Appendix A of this EIR.

3.12.1 Existing Conditions

VEGA 6

The VEGA 6 project site is located in unincorporated County, approximately 10 miles west from the City of Brawley approximately 5 miles southwest of the community of Westmorland. The VEGA 6 project site is located within the Imperial County Fire Department (ICFD)/Office of Energy Services (OES) and the Imperial County Sheriff Department's areas of service.

Fire Protection Services

The project site is located within the ICFD/OES area of service. ICFD/OES currently has nine fire stations and six contracting agencies serving the entire 4,500 square miles of unincorporated Imperial County. The nine ICFD stations are located in the communities of Heber, Seeley, Ocotillo, Palo Verde, Niland, Winterhaven, Salton City, and the City of Imperial (ICFD 2019). Each of the county fire stations is staffed with a Captain, Firefighter, and Reserve Firefighter with the only exception being the Palo Verde station that is staffed with a Firefighter and Reserve Firefighter. Every fire station has a Type I engine as its primary apparatus. The City of Imperial and Heber stations also house a Ladder Truck along with the Type I engine. The Seeley and Heber stations also house Type III engines. The ICFD Emergency Units strive to respond immediately after receiving the initial tone for service. The actual response time would be determined by the area of response throughout the vast response area covered.

The closest fire station to the project is site is the Imperial station located at 2514 La Brucherie Road in Imperial, California. This station is located approximately 14 miles southeast of the project site.

Police Protection Services

Imperial County's Sheriff's Department is responsible for police protection services in the unincorporated areas of Imperial County and the City of Holtville. The patrol function is divided between North County Patrol, South County Patrol, East County Operations, and City of Holtville. Deputies assigned to the Patrol Divisions are the "first responders" to a call for law enforcement

service. The main patrol station is located in El Centro on Applestill Road. Sheriff substations are located in the communities of Brawley, Niland, Salton City, and Winterhaven with resident deputies located in the unincorporated community of Palo Verde. Under an existing mutual aid agreement, additional law enforcement services would be provided if and when required by all of the cities within the county, as well as with Border Patrol and the California Highway Patrol. The California Highway Patrol provides traffic regulation enforcement, emergency accident management, and service and assistance on state roadways and other major roadways in the unincorporated portions of Imperial County.

The closest sheriff's station to the project site is located at 220 Main St #207 in Brawley, California. This station is approximately 9 miles southeast of the project site.

Ramon Substation Expansion

Fire Protection Services

Fire protection services for the project site are provided by the Riverside County Fire Department (RCFD). Regionally, RCFD provides fire, emergency medical, and rescue services from 94 stations. RCFD serves over 2.5 million residents throughout 20 cities and all unincorporated portions of Riverside County. The Ramon Substation expansion area is located within the Battalion 10 response area. RCFD Station No. 35 located at 31920 Robert Road in Thousand Palms is the closest fire station and would provide initial response to the Ramon Substation expansion area. This station is approximately 1.7 miles west of the expansion area.

Police Protection Services

The Riverside County Sheriff's Department provides community policing for the Ramon Substation expansion area. The sheriff station serving the expansion area is the Palm Desert Station, located at 73705 Gerald Ford Drive, approximately 2.3 miles south of the expansion area. In addition to community policing, other services provided by the Sheriff's Department include, but are not limited to, operating of the emergency 911 system, operating correctional facilities, performing traffic control, and providing crime prevention education.

3.12.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

State

Fire Codes and Guidelines

The California Fire Code (Title 24, Part 9 of the CCR) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such

as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

Local

Imperial County General Plan

The Imperial County General Plan Seismic and Public Safety Element contains goals and objectives that relate to fire protection and law enforcement pertinent to the proposed VEGA 6 project. An analysis of the project’s consistency with the applicable goals and objectives of the Seismic and Public Safety Element is provided in Table 3.12-1.

Table 3.12-1. Project Consistency with Applicable General Plan Seismic and Public Safety Element

Applicable General Plan Policies	Consistency Determination	Analysis
<i>Seismic and Public Safety</i>		
Goal 1: Include public health and safety considerations in land use planning.	Consistent	The VEGA 6 project’s CUP application and site plan will be reviewed by the Imperial County Fire Department to ensure that the facility complies with state and local fire codes and fire safety features are met.
Objective 1.8: Reduce fire hazards by the design of new developments		
Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.	Consistent	See response above for a discussion on how the VEGA 6 project would implement all state and local fire codes to reduce the potential for fire hazards. With regards to public safety and security, the VEGA 6 project would include 6-foot tall perimeter security fencing with barbed wire and a motion detection system and closed-circuit camera system. In addition, the points of ingress/egress would be accessed via locked gates that can be opened by any emergency responders.
Objective 2.5: Minimize injury, loss of life, and damage to property by implementing all state codes where applicable.		

Source: ICPDS 1997
 CUP = conditional use permit

Imperial County Office of Emergency Services – Multi-Hazard Mitigation Plan

The ICFD is the local Office of Emergency services in Imperial County. Imperial County has developed the multi-jurisdictional hazard mitigation plan (MHMP) to create a safer community. The purpose of

the MHMP is to significantly reduce deaths, injuries, and other disaster losses caused by natural and human-caused hazards in Imperial County. The MHMP describes past and current hazard mitigation activities and outlines goals, strategies, and actions for reducing future disaster losses. The Imperial County MHMP is the representation of the County's commitment to reduce risks from natural and other hazards and serves as a guide for decision-makers as they commit resources to reducing the effects of natural and other hazards. The jurisdictions included in the MHMP include the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmoreland, the IID and the Imperial County Office of Education. The MHMP complies with all federal, state, and local laws guiding disaster management.

Imperial County Emergency Operations Plan

The Imperial County Emergency Operations Plan (EOP) provides guidance and procedures for the County to prepare for and respond to emergencies. The EOP designates the Sheriff's Department as having jurisdiction in an emergency involving evacuation within the unincorporated areas of the county and within contract cities.

Riverside County General Plan

The Riverside County General Plan includes several policies related to public services that are enforced to minimize the potential impacts on the County's citizens, property, and economy.

LAND USE ELEMENT

- **LU 5.1** Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities, educational and day care centers transportation systems, and fire/police/medical services.
- **LU 5.2** Monitor the capacities of infrastructure and services in coordination with service providers, utilities, and outside agencies and jurisdictions to ensure that growth does not exceed acceptable levels of service.
- **LU 10.1** Require that new development contribute their fair share to fund infrastructure and public facilities such as police and fire facilities.

Riverside County Ordinance No. 787 – Fire Code Standards

Ordinance No. 787 is also known as the County's Uniform Fire Code adopts the most recent 2019 California Fire Code, California Code Regulations, Title 24, Part 9 to govern the safeguarding of life and property from fire, explosion hazards, and hazardous conditions and to regulate the issuance of permits and collection of fees.

3.12.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to public services, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to public services are considered significant if the project would result in the provision of new or physically altered governmental facilities,

need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other Public Facilities

As mentioned previously, it was determined through the preparation of an IS/NOP that the VEGA 6 project would not result in impacts on schools, parks, or other public facilities. Therefore, those issue areas will not be discussed further and are included in Chapter 6, Effects Found Not Significant, of this EIR.

Methodology

Evaluation of potential fire and police service impacts of the proposed VEGA 6 project was based on consultation with the ICFD, Sheriff's Department and review of other development projects in the area. Evaluation of potential fire and police service impacts of the proposed Ramon Substation expansion was based on consultation with the RCFD and Sheriff's Department.

Impact Analysis

Impact 3.12-1 Would the project result in the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

VEGA 6

The VEGA 6 project would result in a minor increase in demand for fire protection services over existing levels. No operation and maintenance (O&M) buildings are being proposed. Additional auxiliary facilities would include lighting, grounding, , fire and hazardous materials safety systems, security systems, chemical safety systems, and emergency response facilities. The VEGA 6 project also includes a BESS, located near the proposed substation. The BESS would consist of either lithium ion or flow batteries, capable of storing up to 160 MW. The batteries will either be housed in storage containers or buildings fitted with heating, ventilation, and air conditioning and fire suppression systems.

The VEGA 6 project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan (County of Imperial 1997), the potential for a major fire in the unincorporated areas of the County is generally low. As discussed in Chapter 2, Project Description, primary access to the VEGA 6 project site would be located off SR 78, across the Westside Main Canal via county roadways (Garvey Road and Andre Road). Internal to the solar energy facility site, up to 30-foot-wide roads would be provided between the PV arrays, as well as around the perimeter of the solar energy facility site yet inside the perimeter security fence to provide access to all areas of the site for maintenance and emergency vehicles. Points of ingress/egress would

be accessed via locked gates that can be opened by any emergency responders. Although the proposed VEGA 6 project would be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health, and safety requirements (e.g., CPUC safety standards), the project applicant will be required to consult and coordinate with the Fire Department to address any fire safety and service concerns (i.e., BESS) so that adequate service is maintained. While the VEGA 6 proposed project may result in an increase in demand for fire protection service, with installation of internal fire prevention systems and ICFD consultation, the VEGA 6 project would not result in an increase in demand that would, in turn, result in a substantial adverse physical impact associated with the provision of new or physically altered fire protection facilities; the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. Based on these considerations, the VEGA 6 project would not result in a need for fire facility expansion and a less than significant impact would occur.

Imperial County requires payment of impact fees for new development projects. Fire Impact Fees are imposed pursuant to Ordinance 1418 §2 (2006), which was drafted in accordance with the County's TischlerBise Impact Fee Study. The ordinance has provisions for non-residential industrial projects based on square footage. The project applicant will be required to pay the fire protection services' impact fees. These fees would be included in the Conditions of Approval for the CUP. No new fire stations or facilities would be required to serve the project. Impacts would therefore be less than significant.

Ramon Substation Expansion

The proposed Ramon Substation expansion would not require fire protection services during construction or operation and maintenance beyond response. The Ramon Substation expansion area would continue to be adequately supported by the existing fire protection services since the construction and operation of the substation expansion would not induce growth in the project area and the fire risk would not create the need for new or physically altered fire protection facilities. Operation and maintenance would not affect the ability of fire personnel to respond to fires. The proposed Ramon Substation expansion is not anticipated to result in the need for fire protection facilities, such as a new fire station or the expansion of existing facilities, and thus impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.12-2 Would the project result in the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

VEGA 6

The VEGA 6 project does not include a residential component; therefore, it would not result in a substantial addition of residents to the Sheriff Department's service area. Although the potential is low, the proposed VEGA 6 project may attract vandals or other security risks and the increase in construction related traffic could increase demand on law enforcement services. Six-foot high chain link fencing topped with barbed wire would be installed around the perimeter of the solar facility site

at the commencement of construction and site access would be limited to authorized site workers. Points of ingress/egress would be accessed via locked gates. In addition, a motion detection system and closed-circuit camera system may also be installed. The site would be remotely monitored 24 hours per day, 7 days per week. In addition, periodic on-site personnel visitations for security would occur during operations and maintenance of the proposed VEGA 6 project, thereby minimizing the need for police surveillance.

The proposed VEGA 6 project may result in a temporary increase in demand for law enforcement service due to the presence of construction equipment and material being stored on-site. With installation of the proposed security features on the project site, the proposed project would not result in an increase in demand that would, in turn, result in a substantial adverse physical impact associated with the provision of new or physically altered sheriff facilities; the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. As conditions of approval of the project, the project applicant will be required to participate in the Imperial County Public Benefit Program for the life of this CUP and shall at all times be a party to a public benefit agreement in a form acceptable to County Counsel in order to pay for all costs, benefits, and fees associated with the approved project, and the applicant will be required to reimburse the Sheriff's Department for any investigations regarding theft on the project site and related law enforcement. Approval of this public benefit agreement will be by the Board of Supervisors prior to the issuance of the first building permit. These potential impacts are less than significant.

Ramon Substation Expansion

The proposed Ramon Substation expansion would not require police services during construction or operation and maintenance beyond routine patrols and response. The proposed Ramon Substation expansion does not include a residential component; therefore, it would not result in a substantial addition of residents to the Riverside County Sheriff Department's service area. Construction and operation of the Ramon Substation expansion would not induce growth in the project area that would result in the permanent, and increased need of police protection services. The proposed Ramon Substation expansion is not anticipated to result in the need for law enforcement facilities, such as a new sheriff station or the expansion of existing facilities, and thus impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

3.12.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Decommissioning and restoration of the project site would occur and would not result in an increased need for fire and police protection services. Decommissioning of the project would occur through implementation of a required Reclamation Plan. These activities would be in the form of disassembling project components, including the BESS, and then restoring the site to pre-project conditions, both of which would not create an increase in demand for police or fire service beyond the

level required for the proposed solar operations. Therefore, no impact is identified and no mitigation is required for this phase.

Residual

With payment of the development impact fees for fire and police protection services, project impacts would be less than significant. No mitigation is required, and no residual significant and unmitigated impacts would result.



3.13 Transportation

This section addresses the potential impacts on traffic and the surrounding roadway network associated with construction and operation of the proposed VEGA 6 project and Ramon Substation expansion. The following discussion describes the existing conditions in the surrounding area, the existing federal, state, and local regulations regarding transportation, and an analysis of the potential impacts of the proposed VEGA 6 project and Ramon Substation expansion. Information contained in this section for the VEGA 6 project is summarized from the *VEGA SES 6 Solar Energy Storage Project Traffic Impact Study* prepared by KOA. This report is included in Appendix J of this EIR. The information provided in this section for the Ramon Substation expansion is summarized from review of publicly available data including the Riverside County General Plan and County of Riverside Transportation Analysis Guidelines.

3.13.1 Existing Conditions

VEGA 6

Existing Circulation Network

The following is a description of the nearby roadway network:

State Route (SR) 78/86 south of Westmorland is a four-lane divided highway. It has recently been widened to provide two lanes in each direction with left turn bays provided. Within the City of Westmorland, the route transitions to a four-lane roadway (named Main Street) with a center two-way left turn lane provided. The intersection of Main Street and Center Street is signalized. West of Martin Road, SR 78/86 transitions back to a four-lane divided highway.

Center Street is a two-lane street in the City of Westmorland. Diagonal parking is provided on the two blocks south of Main Street. Outside the City, this roadway is Forrester Road a two-lane rural county highway.

Baughman Road/Martin Road are two lane roads that are partly in the County and partly in the City of Westmorland. These roads are paved, and they are used by heavy vehicles and other vehicles connecting between SR 78/86 and Forrester Road.

Traffic Study Area

The traffic study area for the proposed VEGA 6 project was based on the County of Imperial Department of Public Works Traffic Study and Report Policy approved by the Board of Supervisors

INTERSECTIONS

The traffic study area for the proposed VEGA 6 project includes the following intersections:

1. Buck Road and SR/78/86 (located west of Westmorland)
2. Martin Road and SR-78/86 (located on the west edge of Westmorland)
3. Center Street and SR-78/86 (located midway in Westmorland)
4. Boarts Road (CR-26) and SR-78/86 (located on the eastside of Westmorland)
5. SR-86 and SR-78 (Brawley Bypass)

ROADWAY SEGMENTS

The traffic study area for the proposed VEGA 6 project includes the following roadway segments:

1. SR-78/86 from SR-78/86 from the Buck Road to the north
2. SR-78/86 from Buck Road to Martin Road
3. SR-78/86 from Martin Road to Center Street
4. SR-78/86 SR-7 from Center Street to Boarts Road (CR-26)
5. SR-78/86 SR-7 from Boarts Road (CR-26) to Brawley Bypass
6. Center Street from Baughman Road to SR 78/86

Existing Level of Service

Level of service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. LOS ranges from A through F, where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating needs.

INTERSECTIONS

All of the study area intersections analyzed currently operate at acceptable LOS C or better during the AM and PM peak hours under existing conditions.

ROADWAY SEGMENTS

All of the study area roadway segments analyzed currently operate at acceptable LOS B or better under existing conditions.

Alternative/Public Transportation

FIXED ROUTE TRANSPORTATION

Imperial Valley Transit (IVT) is an inter-city fixed route bus system, subsidized by the Imperial Valley Association of Governments (IVAG), administered by the County Department of Public Works and operated by a public transit bus service. The service is wheelchair accessible and Americans with Disabilities Act compliant. IVT Routes are defined categorized in the following manner:

- **Fixed Routes.** Fixed routes operate over a set pattern of travel and with a published schedule. The fixed route provides a low cost, reliable, accessible and comfortable way to travel.
- **Deviated Fixed Route.** In several service areas, IVT operates on a deviated fixed route basis so that persons with disabilities and limited mobility are able to travel on the bus. Passengers must call and request this service the day before service is desired in the communities of Seeley, Ocotillo and the east side of the Salton Sea.
- **Remote Zone Routes.** Remote zone route operates once a week. These routes are "lifeline" in nature in that they provide connections from some of the more distant communities in the Imperial County area (IVT 2021).

The VEGA 6 project site is not within the Fixed Route Transportation system and, therefore, would not receive regular bus service to the VEGA 6 project site or within the vicinity of the VEGA 6 project site. The nearest IVT bus stop is located in the City of Westmorland at Main Street and Center Street, approximately 4.4 miles northeast of the VEGA 6 project site.

BICYCLE FACILITIES

The VEGA 6 project site is located within a rural portion of Imperial County. There are no bicycle facilities in the immediate proximity of the VEGA 6 project site.

Project Site Access

Access to and from the VEGA 6 project site will be provided from the intersection of SR-78/86 at Buck Road. The access route will include Buck Road between SR 78/86 and Garvey Road, and Garvey Road between Buck Road to Andres Road. Vehicles will cross over the Westside Main Canal on Andre Road.

Ramon Substation Expansion

Existing Circulation Network

The following is a description of the nearby roadway network:

Ramon Road is identified as an arterial (128-foot ROW) in the Riverside County General Plan. Ramon Road is a two-lane arterial in Thousand Palms, California. The Thousand Palms area is located along Interstate 10 at the intersection of Ramon Road. This unincorporated area is characterized by mobile home subdivisions, single-family residential neighborhoods, and rural residential development. Commercial and industrial developments are located along Ramon Road and Varner Road. Tourist-oriented commercial uses such as truck stops, motels, and fast-food restaurants are located at the interchanges of Interstate 10 with Ramon Road and, to a lesser extent, Monterey Avenue.

Interstate 10 is a six-lane divided highway with three lanes provided in each direction within proximity of the Ramon Substation Expansion project.

Alternative/Public Transportation

FIXED ROUTE TRANSPORTATION

The public transit system alternatives for Riverside County include fixed route public transit systems, common bus carriers, AMTRAK (intercity rail service), Metrolink (commuter rail service), and other local agency transit and paratransit services.

The Riverside Transit Agency (RTA) operates fixed bus routes providing public transit service throughout a 2,500- square-mile area of western Riverside County. RTA's fixed routes have been designed to establish transportation connections between all cities and unincorporated communities in western Riverside County. RTA currently operates full-size buses, mini-buses, vans, and trolleys.

SunLine Transit Agency (SunLine) provides public interest transit services for the Coachella Valley and Yucca Valley areas of Riverside County. RTA Routes are defined categorized in the following manner:

- **Fixed Routes.** Fixed routes operate over a set pattern of travel and with a published schedule. The fixed route provides a low cost, reliable, accessible and comfortable way to travel.

- **Deviated Fixed Route.** In several service areas, RTA operates on a deviated fixed route basis so that persons with disabilities and limited mobility are able to travel on the bus. Passengers must call and request this service the day before service is desired in the communities of Riverside County.

The Ramon Substation expansion area is not within the Fixed Route Transportation system and, therefore, would not receive regular bus service to the Ramon Substation expansion area or within the vicinity of the Ramon Substation expansion area.

BICYCLE FACILITIES

The Ramon Substation expansion area is located within a rural portion of Riverside County. There are no bicycle facilities in the immediate proximity of the Ramon Substation expansion area.

Project Site Access

Access to and from the Ramon Substation expansion area will be provided via Ramon Road.

3.13.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

State

Senate Bill 743

In September 2013, the Governor's Office signed Senate Bill 743 into law, starting a process that fundamentally changes the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes include the elimination of Auto Delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. The guidance identifies vehicle miles traveled (VMT) as the most appropriate CEQA transportation metric, along with the elimination of Auto Delay/LOS for CEQA purposes statewide. The justification for this paradigm shift is that Auto Delay/LOS impacts lead to improvements that increase roadway capacity and therefore induce more traffic and greenhouse gas emissions.

California Department of Transportation

Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Specifically, Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System.

As it relates to the proposed VEGA 6 project and potential construction access routes within Imperial County, Caltrans District 11 is responsible for maintaining and managing I-8 and SR-78/86.

Regional

Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (ConnectSoCal)

On September 3, 2020, SCAG adopted the 2020-2045 RTP/SCS (SCAG 2020). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. Input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2020-2045 RTP/SCS demonstrates how the region will reduce emissions from transportation sources to comply with SB 375 and meet the NAAQS set forth by the Clean Air Act.

The updated RTP/SCS contains thousands of individual transportation projects that aim to improve the region's mobility and air quality and revitalize the economy. Since the RTP/SCS's adoption, the county transportation commissions have identified new project priorities and have experienced technical changes that are time-sensitive. Additionally, the new amendments for the plan have outlined minor modifications to project scopes, costs and/or funding and updates to completion years. The amendments to the RTP/SCS do not change any other policies, programs, or projects in the plan.

Local

Imperial County General Plan

The Circulation and Scenic Highways Element identifies the location and extent of transportation routes and facilities. It is intended to meet the transportation needs of local residents and businesses and as a source for regional coordination. The inclusion of Scenic Highways provides a means of protecting and enhancing scenic resources within highway corridors in Imperial County. The purpose of the Circulation and Scenic Highways Element is to provide a comprehensive document which contains the latest knowledge about the transportation needs of the County and the various modes available to meet these needs. Additionally, the purpose of this Element is to provide a means of protecting and enhancing scenic resources within both rural and urban scenic highway corridors.

Coordination across jurisdictional standards for road classification and design standards was identified as a crucial component to the 2008 update of the Circulation and Scenic Highways Element. The intent of this element is to provide a system of roads and streets that operate at a LOS "C" or better (County of Imperial 2008).

County of Imperial Bicycle Master Plan Update: Final Plan

In 2012, the County of Imperial adopted an updated Bicycle Master Plan to serve as the guiding document for the development of an integrated network of bicycle facilities and supporting programs designed to link the unincorporated areas and attractive land uses throughout the County. This document is an update to the previously adopted Countywide Bicycle Master Plan; and was prepared to accomplish the following goals:

1. To promote bicycling as a viable travel choice for users of all abilities in the County
2. To provide a safe and comprehensive regional connected bikeway network
3. To enhance environmental quality, public health, recreation and mobility benefits for the County through increased bicycling

The County of Imperial's General Plan, Circulation and Scenic Highways Element, and Conservation and Open Space Element, provide a solid planning basis for the Bicycle Master Plan. In spite of the fact that there are a limited number of bicycle facilities in Imperial County and no comprehensive bicycle system, there is a growing interest in cycling and numerous cyclists bike on a regular basis for both recreation and commuting to work and school.

County of Riverside Transportation Analysis Guidelines

The purpose of the Transportation Analysis Guidelines is to provide instructions for analyzing projects in compliance with (1) the Riverside County's General Plan policies and (2) transportation related Vehicle Miles Traveled analysis as required under CEQA. All projects, whether public or private, requiring a discretionary approval trigger the CEQA review process. The objective of this process, in part, is to identify significant environmental impacts, including those from transportation impacts.

Certain types of projects, because of their size, nature, or location, are exempt from the requirement of preparing a LOS analysis. The following types of projects are generally exempt from preparing a LOS analysis:

1. All Residential Parcel Maps.
2. Single Family Residential Tracts of less than 100 lots.
3. Apartments and other Multiple Family projects of less than 150 units.
4. Plot Plan and Uses Cases for projects of one acre or less.
5. Preschools, Elementary Schools and Middle Schools.
6. Churches, Lodges, Community Centers, Neighborhood Parks and Community Parks.
7. Mini Storage Yards
8. Congregate Care Facilities that contain significant special services, such as medical facilities, dining facilities, recreation facilities and support retail facilities.
9. Level 1 projects (100-200 peak hour trips) in areas where a comprehensive traffic analysis has been performed and road improvement infrastructure funding mechanisms are in place. The Transportation Department may, however, require a traffic analysis for projects that are anticipated to exhibit potential adverse deficiencies on the circulation system.
10. Any use which can demonstrate, based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 vehicle trips during the peak hours.

3.13.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to transportation, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to transportation are considered significant if any of the following occur:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities
- Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

Methodology

VEGA 6

COUNTY OF IMPERIAL

ROADWAY SEGMENT LEVEL OF SERVICE STANDARDS

The County of Imperial does not have published significance criteria for traffic impacts. However, the Circulation and Scenic Highways Element of the County General Plan does state that the LOS goal for intersections and roadway segments is to operate at LOS C or better. Therefore, if an intersection or segment degrades from LOS C or better to LOS D or worse with the addition of project traffic, the impact is considered significant. Furthermore, a project may result in a significant impact on Caltrans facilities if the new project traffic has decreased the operations of surrounding roadways and intersections by a defined threshold.

PEAK HOUR INTERSECTION LEVEL OF SERVICE STANDARDS

A project is considered to have a significant impact on Caltrans facilities if the project traffic has decreased the operations of surrounding roadways by a defined threshold. The Traffic Impact Study (Appendix J of this EIR) used principles of the specific analysis methods contained in the 2010 Highway Capacity Manual to analyze traffic conditions on roadway facilities. The analysis of peak hour intersection conditions was conducted using the Synchro 10 software program developed by Trafficware. Table 3.13-1 summarizes the LOS criteria for signalized and unsignalized intersections.

The County of Imperial traffic impact study guidelines consider LOS C or better during the AM and PM peak hours to be the threshold of significance for intersection LOS. Therefore, if the proposed project exceeds the County's LOS C threshold for surrounding roadways intersections, then the proposed project may have a significant project impact.

Table 3.13-1. HCM Level of Service Thresholds for Intersections

LOS	Signalized Intersection Delay (Seconds/Vehicle)	Unsignalized Intersection Average Stop Delay (Seconds/Vehicle)
A	0.0 ≤ 10.0	0.0 ≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.0	≥ 50.0

Source: Appendix J of this EIR
 LOS – level of service

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Freeway LOS analysis is based upon procedures developed by Caltrans. Consistent with Caltrans requirements, LOS D or better is used as the threshold for acceptable freeway operations. For freeway segments that operate at LOS D or lower, an incremental increase in v/c of greater than 0.01 is considered to be a significant impact.

PROJECT TRIP GENERATION

The project trip generation consists of a construction phase and operations phase. Once constructed, the VEGA 6 project will not require personnel to be present on-site and will not result in daily trip generation.

The construction of the VEGA 6 project is estimated to take 12-18 months and would begin in 2023. The number of on-site construction workers for the solar project facilities is not expected to exceed 100 workers at any one time. The number of on-site construction workers for the battery storage facility and the substation is not expected to exceed 50 workers at any one time. The trip generation was estimated if the construction phases were to overlap, so both are included. Delivery trucks are expected to follow the same routes as the construction workers. An estimated two trucks would arrive at the project site each day during the first few weeks of construction of the solar generating facility. Truck trips have been converted into passenger equivalent volumes (PCE) using a PCE factor of 2.5.

According to KOA, a maximum of 320 average daily trips (ADT) would be generated during project construction, accounting for construction worker commutes and equipment deliveries.

Ramon Substation Expansion

COUNTY OF RIVERSIDE TRANSPORTATION ANALYSIS GUIDELINES

As previously mentioned above, the County of Riverside Transportation Analysis Guidelines identifies certain types of projects, because of their size, nature, or location, which are exempt from the requirement of preparing a LOS analysis. The proposed Ramon Substation expansion would be exempt because anticipated trip generation rates would be less than 100 vehicle trips during the peak hours.

The construction of the Ramon Substation expansion is estimated to take 180 working days and would begin in 2024. The number of on-site construction workers is not expected to exceed 20 workers at any one time (40 ADT). Vendor trips is not expected to exceed 29 ADT during peak of construction. A maximum of 69 ADT would be generated during construction. Once constructed, the proposed Ramon Substation expansion will not require personnel to be present on-site and will not result in daily trip generation. Because the proposed Ramon Substation expansion is estimated to generate less than 100 vehicle trips during peak hours, it would be considered exempt from the requirement of preparing a LOS analysis.

Impact Analysis

Impact 3.13-1 Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

VEGA 6

During the construction phase of the proposed VEGA 6 project, the maximum number of trips generated on a daily basis would be approximately 320 trips. Under construction year conditions with and without the proposed project, all roadway segments analyzed would operate at LOS B or better and all intersections would operate at a LOS C or better during both AM and PM peak hours.

Implementation of the proposed VEGA 6 project would not require any public road widening to accommodate vehicular trips associated with the proposed VEGA 6 project (construction phase and operational phase), while maintaining adequate LOS. Additionally, future operations and maintenance would be conducted remotely, with minimal trips to the project site for panel washing and other solar maintenance. There is no regular bus service to the general area and project-related construction and operations and maintenance phases would not impact mass transit. The proposed VEGA 6 project would not interfere with bicycle facilities because the proposed VEGA 6 project is located in a rural portion of the County with no existing or potential future designated bike routes in the area. Therefore, the proposed VEGA 6 project would not result in any significant impacts to any roadway segments or transportation related facilities/infrastructure within the project area during construction and operation; and would not conflict with a program plan, ordinance, or policy as it relates to traffic and transportation. Impacts are considered less than significant.

Ramon Substation Expansion

During the construction phase of the Ramon Substation expansion, the maximum number of trips generated on a daily basis would be approximately 69 trips. Because the proposed Ramon Substation expansion is estimated to generate less than 100 vehicle trips during peak hours, it would be considered exempt from the County of Riverside's requirement of preparing a LOS analysis.

There is no regular bus service to the general area and project-related construction and operations and maintenance phases would not impact mass transit. The proposed Ramon Substation expansion would not interfere with bicycle facilities because the proposed expansion area is located in a rural portion of the County with no existing or potential future designated bike routes in the area. Therefore, the proposed expansion would not result in any significant impacts to any roadway segments or transportation related facilities/infrastructure within the project area during construction and operation; and would not conflict with a program plan, ordinance, or policy as it relates to traffic and transportation. Impacts are considered less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.13-2 Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

VEGA 6

Section 15064.3(b) of the CEQA Guidelines provides guidance on determining the significance of transportation impacts and focuses on the use of vehicle miles traveled (VMT), which is defined as the amount and distance of automobile travel associated with a project.

Although the proposed VEGA 6 project would increase VMT during the construction phase as a result of trips made by construction workers and transportation of construction material and equipment, these increases are temporary in nature. Further, as discussed above, operation of the proposed VEGA 6 project would only require intermittent maintenance (including inspection, panel washing, and vegetation removal), which would be a nominal amount of vehicle trips generated (12 trips annually). Therefore, the proposed VEGA 6 project would not conflict or be inconsistent with Section 15064.3(b) of the CEQA Guidelines and this impact is considered less than significant.

Ramon Substation Expansion

Although the proposed Ramon Substation expansion would increase VMT during the construction phase as a result of trips made by construction workers and transportation of construction material and equipment, these increases are temporary in nature. Further, as discussed above, the proposed Ramon Substation expansion will not require personnel to be present on-site and will not result in daily trip generation. Therefore, the proposed VEGA 6 project would not conflict or be inconsistent with Section 15064.3(b) of the CEQA Guidelines and this impact is considered less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.13-3 Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

VEGA 6

To accommodate emergency access, PV panels would be spaced to maintain proper clearance. Internal access roads, up to 30-feet wide, would be constructed along the perimeter fence and solar

panels to facilitate vehicle access and maneuverability for emergency unit vehicles. Access roads would be graded and compacted (native soils) as required for construction, operations, maintenance, and emergency vehicle access. Additionally, any proposed haul routes would be submitted to the County for approval prior to construction. Therefore, the VEGA 6 project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts are considered less than significant.

Ramon Substation Expansion

No public roadways would be constructed as a part of the proposed Ramon Substation expansion. Incompatible uses associated with the proposed expansion, such as use by construction equipment and transport of materials would be short-term and minor and impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

Impact 3.13-4 Would the project result in inadequate emergency access?

VEGA 6

Access to and from the VEGA 6 project site will be provided from the intersection of SR-78/86 at Buck Road. The access route will include Buck Road between SR 78/86 and Garvey Road, and Garvey Road between Buck Road to Andres Road. Vehicles will cross over the Westside Main Canal on Andre Road. PV panels would be spaced to maintain proper clearance for emergency access. Internal access roads, up to 30-feet wide, would be constructed along the perimeter fence and solar panels to facilitate vehicle access and maneuverability for emergency unit vehicles. Access roads would be graded and compacted (native soils) as required for construction, operations, maintenance, and emergency vehicle access. The access roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards. Therefore, the VEGA 6 project would not result in inadequate emergency access and impacts are considered less than significant.

Ramon Substation Expansion

Similar to existing conditions, access to and from the Ramon Substation expansion area will be provided via Ramon Road. The County of Riverside will review the proposed site plan to ensure that adequate emergency access would be available at the site. Accordingly, the proposed Ramon Substation expansion would not result in inadequate emergency access during long-term operation of the project and impacts would be less than significant.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.13.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. As presented above, construction traffic would not result in a significant impact on any of the project area roadway segments, intersections, and freeway segments because of the low volume of traffic. A similar scenario would occur during the decommissioning and site restoration stage for the proposed project. ADT would be similar to or less than the ADT required for construction. Similarly, the decommissioning activities would not result in a significant impact related to possible safety hazards, or possible conflicts with adopted policies, plans, or programs as the decommissioning and subsequent restoration would revert the project site to pre-project conditions. Therefore, decommissioning and restoration of the project site would not generate traffic resulting in a significant impact on the circulation network. A less than significant impact is identified, and no mitigation is required.

Residual

The construction and operation of the proposed project would not result in direct impacts on intersections and roadway segments. Therefore, less than significant impacts have been identified. No mitigation is required, and no residual unmitigated impacts would occur with implementation of the proposed project.

3.14 Tribal Cultural Resources

This section discusses tribal cultural resources that may be potentially impacted by the proposed project. The following identifies the existing cultural resources within the project site, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project.

[Insert text here].

3.14.1 Existing Conditions

Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR); or included in a local register of historical resources; or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be tribal cultural resources if they meet these criteria (PRC Section 21074).

Tribal Cultural Setting

See Section 3.5, Cultural Resources of this EIR, for description of the regional ethnohistory. Sacred Lands File Results

VEGA 6

ECORP contacted the California Native American Heritage Commission (NAHC) on September 15, 2020, to request a search of the Sacred Lands File for the VEGA 6 project area (Appendix F1 of this EIR). A search of the Sacred Lands File by the NAHC failed to indicate the presence of Native American cultural resources in the VEGA 6 Survey Area. A record of all correspondence is provided in the *Cultural Resources Inventory Report* (Appendix F1 of this EIR).

Ramon Substation Expansion

On June 12, 2023, HDR submitted to the NAHC a request for a search of the Sacred Lands File in correspondence with the Ramon Substation expansion area. The NAHC responded on July 10, 2023, stating that the results of the Sacred Lands File search were negative and provided a contact list for twelve Native American tribes who may also have knowledge of cultural resources in the vicinity of the Ramon Substation expansion area. A record of all correspondence is provided in the *Ramon Substation Expansion – Cultural Resource Technical Study* (Appendix F2 of this EIR).

Tribal Notification

In accordance with Assembly Bill (AB) 52 and Senate Bill (SB) 18, the County provided notification of the proposed project to Native American tribes that the County understands to be traditionally and culturally affiliated with the geographic area of the proposed project. This notification was provided in a letter sent via certified mail on July 1, 2022 to the following Native American tribes and groups:

- Torres-Martinez Desert Cahuilla Indians
- Kumeyaay Cultural Reparation Committee

- Manzanita Band of Kumeyaay Nation
- La Posta Band of Mission Indians
- Fort Yuma - Quechan Indian Tribe
- Ewiiapaayp Band of Kumeyaay Indians
- Colorado River Indian Tribes
- Inter-Tribal Cultural Resource Protection Council
- Cocopah Indian Tribe
- Campo Band of Mission Indians
- Chemehuevi Reservation
- Augustine Band of Cahuilla Mission Indians.

3.14.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Native American Graves Protection and Repatriation Act (1990); Title 25, United States Code Section 3001, et seq.

The Native American Graves Protection and Repatriation Act defines “cultural items,” “sacred objects,” and “objects of cultural patrimony;” establishes an ownership hierarchy; provides for review; allows excavation of human remains but stipulates return of the remains according to ownership; sets penalties; calls for inventories; and provides for the return of specified cultural items.

State

Assembly Bill 52

AB 52 amends PRC 5097.94, and adds eight new sections to the PRC relating to Native Americans. AB 52 was passed in 2014 and took effect on July 1, 2015. It establishes a new category of environmental impacts that must be considered under CEQA called tribal cultural resources (PRC 21074) and establishes a process for consulting with Native American tribes and groups regarding potential impacts to tribal resources. Under AB 52, a project that may substantially change the significance of a tribal cultural resource is a project that may have a significant impact on the environment. If a project may cause a significant impact on a tribal cultural resource, the lead agency shall implement measures to avoid the impacts when feasible.

Senate Bill 18

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Public Resources Code Section 21074

PRC Section 21074 defines a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, and any object with cultural value to a California Native American Tribe. A tribal cultural resource must be on or eligible for the CRHR or must be included in a local register of historical resources. The lead agency can determine if a tribal cultural resource is significant even if it has not been evaluated for the CRHR or is not included on a local register.

Assembly Bill 4239

AB 4239, passed in 1976, established the NAHC as the primary government agency responsible for identifying and cataloging Native American cultural resources. The bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites and authorized the Commission to prepare an inventory of Native American sacred sites located on public lands.

Public Resources Code 5097.97

No public agency and no private party using or occupying public property or operating on public property under a public license, permit, grant, lease, or contract made on or after July 1, 1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the U.S. Constitution and the California Constitution; nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

Public Resources Code 5097.97 (b) and (e)

PRC 5097.98 (b) and (e) require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified most likely descendants (MLD) to consider treatment options. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reenter the remains elsewhere on the property in a location not subject to further disturbance.

California Health and Safety Code, Section 7050.5

California HSC 7050.5 makes it a misdemeanor to disturb or remove human remains found outside a cemetery. This code also requires a project owner to halt construction if human remains are discovered and to contact the County Coroner.

3.14.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to tribal cultural resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to tribal cultural resources are considered significant if the project causes a substantial adverse change in the significance of a tribal cultural resource defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC section 5020.1(k)
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

Impact Analysis

Impact 3.14-1 Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

The NAHC maintains the confidential SLF which contains sites of traditional, cultural, or religious value to the Native American community. As previously mentioned in Section 3.14.1 above, the NAHC responded that no previously identified cultural resources were known to be in the vicinity of the VEGA 6 project area and Ramon Substation expansion area.

AB 52 was passed in 2014 and took effect on July 1, 2015. It establishes a new category of environmental resources that must be considered under CEQA called tribal cultural resources (PRC 1074) and establishes a process for consulting with Native American tribes and groups regarding those resources. AB 52 requires a lead agency to begin consultation with a California Native American Tribe that is traditionally and culturally affiliated with the geographic areas of the proposed project. In accordance with AB 52 and SB 18, the County provided notification of the proposed project to Native American tribes that the County understands to be traditionally and culturally affiliated with the geographic area of the proposed project. This notification was provided in a letter sent via certified mail on July 1, 2022, to the following Native American tribes and groups:

- Torres-Martinez Desert Cahuilla Indians
- Kumeyaay Cultural Reparation Committee

- Manzanita Band of Kumeyaay Nation
- La Posta Band of Mission Indians
- Fort Yuma - Quechan Indian Tribe
- Ewiiapaayp Band of Kumeyaay Indians
- Colorado River Indian Tribes
- Inter-Tribal Cultural Resource Protection Council
- Cocopah Indian Tribe
- Campo Band of Mission Indians
- Chemehuevi Reservation
- Augustine Band of Cahuilla Mission Indians.

The County requested for tribes to provide any information regarding any Traditional Cultural Properties, Sacred Sites, resource collecting areas, or any other areas of concern known to occur in the project area.

To date, no tribes have responded that indicate the potential for traditional cultural properties or sacred sites. Therefore, the project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1, and, per the criteria set forth in Section 5024.1, considering the significance of the resource to a California Native American tribe. As stated in Section 3.5 Cultural Resources, potential impacts to archaeological resources and human remains would be less than significant with implementation of Mitigation Measures CUL-3, CUL-4, RS-CUL-1 and RS-CUL-2. Impacts specifically related to tribal cultural resources would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

3.14.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. No grading or significant landform modifications would be required during decommissioning activities upon site restoration in the future. No impact on tribal cultural resources would occur.

Residual

As described above, impacts specifically related to tribal cultural resources would be less than significant. No mitigation is required, and no residual unmitigated impacts would occur with implementation of the proposed project.

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3.15 Utilities and Service Systems

This section includes an evaluation of potential impacts for identified Utilities/Service Systems that could result from implementation of the VEGA 6 project and Ramon Substation expansion. Utilities/Service Systems include wastewater treatment facilities, stormwater drainage facilities, water supply and treatment, and solid waste disposal. The impact analysis provides an evaluation of potential impacts to Utilities/Service Systems based on criteria derived from CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description. Information contained in this section for the VEGA 6 project is summarized from the *Water Supply Assessment (WSA) for the ZGlobal Vega 6, LLC Solar Energy and Battery Storage Project* prepared by EMKO Environmental, Inc. as a subconsultant for ECORP Consulting, Inc. This report is included in Appendix K of this EIR. The information provided in this section for the Ramon Substation expansion area is summarized from review of publicly available data including the Department of Water Resources' Groundwater Bulletin and the 2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan.

Potential impacts with regards to solid waste disposal, storm drainage, and wastewater treatment would be less than significant. Therefore, these impacts are not addressed in detail in this EIR; however, the rationale for eliminating these issues is discussed in Chapter 6.0, Effects Found Not Significant.

3.15.1 Existing Conditions

VEGA 6

Section 10912(c) of the Water Code identifies a public water system as a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. The VEGA 6 project site is approximately five to 10 miles away from the nearest municipal water systems (i.e., the community of Westmorland and the City of Brawley, respectively). The VEGA 6 project site is located outside of the IID Imperial Unit and therefore, does not have water service from IID. There is not a public water system that will serve the VEGA 6 project (Appendix K of this EIR). Water supply for the VEGA 6 project would be provided by a new on-site groundwater supply well(s) that would be installed as part of the project.

Imperial Valley Groundwater Basin

The VEGA 6 project site is located within the northwestern part of the Imperial Valley Groundwater Basin. The Imperial Valley Groundwater Basin is bounded on the east by the Sand Hills and on the west by the igneous and metamorphic rocks of the Fish Creek and Coyote Mountains. The northern boundary is the Salton Sea while the southern boundary is the international border with Mexico. The groundwater basin has an area of approximately 1,200,000 acres, or 1,870 square miles. The Basin has not been adjudicated (Appendix K of this EIR).

Groundwater occurs within two major aquifers, separated at depth by a semi-permeable aquitard that averages 60 feet thick and reaches a maximum thickness of 280 feet. The aquifers consist mostly of alluvial deposits of late Tertiary and Quaternary age that have eroded from the adjacent mountains and filled the valley. The upper aquifer has an average thickness of approximately 200 feet with a maximum thickness of 450 feet. The lower aquifer averages approximately 380 feet thick with a maximum thickness of 1,500 feet (Appendix K of this EIR).

GROUNDWATER SUPPLY AND RECHARGE

The majority of the Imperial Valley Groundwater Basin area consists of irrigated agriculture (refer to Figure 4 in Appendix K of this EIR). Surface water from the Colorado River provides almost all of the irrigation and municipal water supply, through IID. Ninety-seven percent of IID's 3.1-million-acre-foot entitlement is used to irrigate almost 500,000 acres of farmland (Appendix K of this EIR). The remaining three percent of IID's allocation supplies municipal, commercial, industrial, and rural domestic needs.

The total groundwater storage capacity of the Imperial Valley Groundwater Basin is estimated to be as much as 14,000,000 acre-feet (Appendix K of this EIR). Much of the groundwater is not usable for agricultural and municipal purposes due to high levels of dissolved solids. As a result, there are only seven public water supply wells and 57 total wells present within the 1,200,000-acre Basin (Appendix K of this EIR).

The average annual rainfall is very low and typically does not provide a sufficient quantity of moisture to percolate deep into the alluvial sediments. As a result, recharge of groundwater occurs primarily due to deep percolation of applied irrigation water and lateral inflow from adjacent groundwater basins. The average annual increase in groundwater storage in the Basin is estimated to be 17,000 acre-feet per year (Appendix K of this EIR).

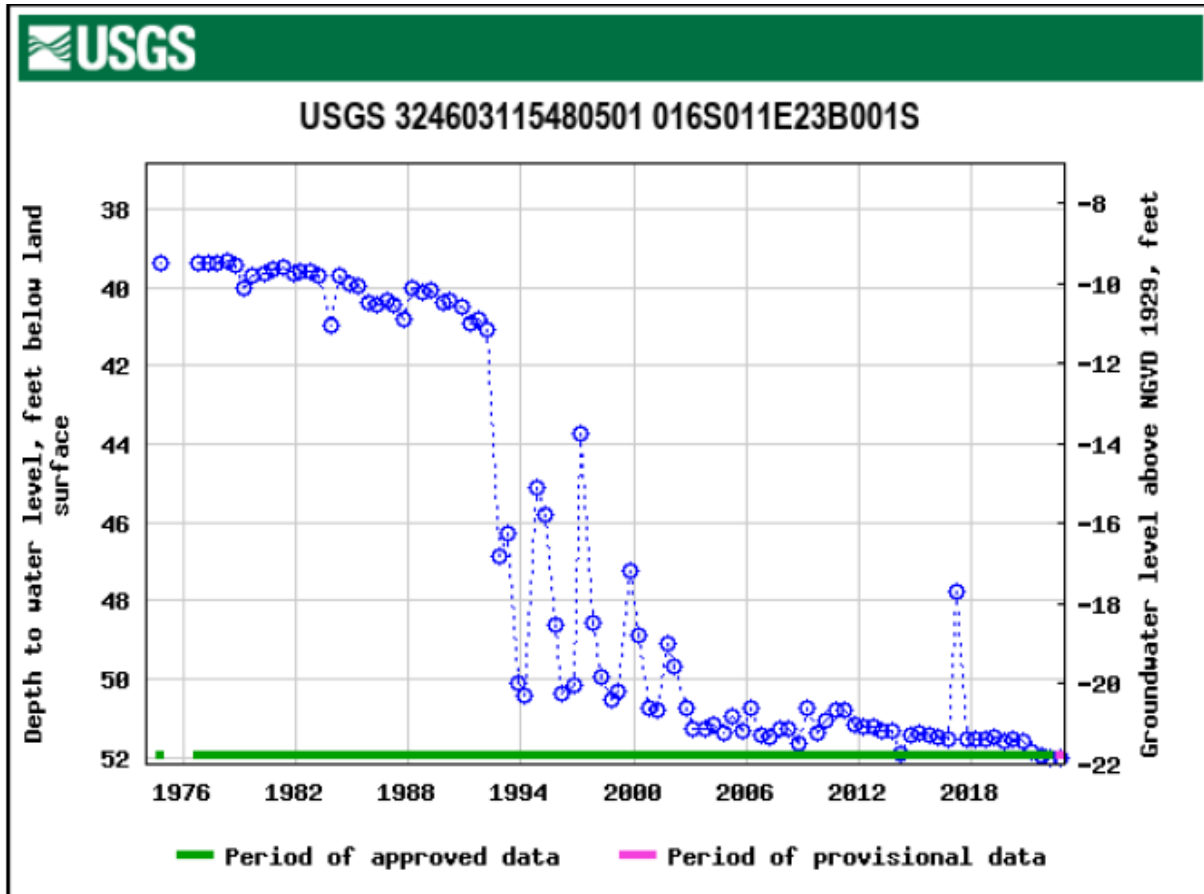
GROUNDWATER LEVELS

The nearest active monitoring well to the VEGA 6 project site is approximately 18 miles to the southwest of the VEGA 6 project site (USGS identification number 324603115480501 and California state well number 016S011E23B001). The ground surface elevation at the well location is reported to be 30 feet above mean sea level (ft msl) while the well depth is reported to be 114.7 feet below ground surface (bgs) (Appendix K of this EIR).

Figure 3.15-1 is a hydrograph from USGS (2023) showing the groundwater level and groundwater elevation measured since 1974 at Well 324603115480501. Data has been measured from October 1974 to October 2022. As indicated on Figure 3.15-1, from 1974 to 1992, the depth to groundwater changed from approximately 39.5 ft bgs to 41 ft bgs. Between 1992 and 1994, the groundwater level decreased relatively rapidly from 41 ft bgs to about 50 ft bgs. Since 1992, the groundwater level has decreased from 50 ft bgs to 52 ft bgs. From 1974 to 1992, the rate of change in the groundwater level was approximately 0.08 foot per year, while from 1994 to 2022 the rate of change in the groundwater level was approximately 0.7 foot per year. Between 1993 and 2002, the data indicate that fluctuations occurred seasonally, potentially as a result of pumping. The overall decline of 12.5 feet from 1974 to 2022 represents a reduction in the available water column in the well of approximately 17 percent (Appendix K of this EIR).

The water quality reported from Well 324603115480501 is much more saline than in many other parts of the Basin, based on the information reported by DWR (2003) and renders the groundwater unusable for potable or agricultural uses (Appendix K of this EIR).

Figure 3.15-1. USGS Groundwater Level Hydrograph



Source: Appendix K of this EIR

GROUNDWATER SUSTAINABILITY

A series of three bills passed by the California legislature were signed by Governor Brown on September 16, 2014. These three bills, Assembly Bill (AB) 1739, SB 1168, and SB 1319, together comprise the Sustainable Groundwater Management Act of 2014 (SGMA). SGMA provides a structure under which local agencies are to develop a sustainable groundwater management program. SGMA focuses on basins or subbasins designated by DWR as high or medium priority basins, and those with critical conditions of overdraft.

According to DWR, the Basin is a very low priority basin (Appendix K of this EIR). DWR has not identified the Basin as overdrafted nor has it projected that the basin will become overdrafted if present management conditions continue. Thus, the Basin is not subject to the current requirements of SGMA, including the formation of a groundwater sustainability agency (GSA) and preparation of a groundwater sustainability plan (GSP).

Ramon Substation Expansion

Coachella Valley Groundwater Basin

The Ramon Substation expansion area is located within the Coachella Valley Groundwater Basin – Indio Subbasin. Indio Subbasin is located northwest of the Salton Sea and receives low precipitation, averaging about 6 inches per year, and a wide range of temperatures. The Banning fault bounds the

subbasin on the north and the semi-permeable rocks of the Indio Hills mark the northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Gorgonio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast. The Indio Subbasin is drained by the Whitewater River and its tributaries. The Whitewater River rarely flows throughout the year and flow in tributaries such as San Gorgonio River is intermittent. Surface flow is southeastward to the Salton Sea. The Colorado River Aqueduct and the Coachella Branch of the All-American Canal convey imported surface water into the Coachella Valley which overlies the subbasin (DWR 2004).

Primary water-bearing materials in the subbasin are unconsolidated late Pleistocene and Holocene alluvial deposits. These deposits consist of older alluvium and the Ocotillo Conglomerate Formation, a thick sequence of poorly bedded coarse sand and gravel. The Ocotillo Conglomerate is greater than 1,000 feet thick in many places and is the primary water-bearing unit in the subbasin. In the upper part of the subbasin, groundwater is unconfined, whereas to the south and southeast groundwater is mostly confined except on the edges of the subbasin where unconfined conditions are found. Depth to groundwater varies widely in the southeast part of the subbasin and some wells historically delivered artesian flow. Confinement begins near Point Happy and continues south to the Salton Sea (DWR 2004).

GROUNDWATER LEVEL TRENDS

Prior to 1949, water levels steadily declined because of pumping. After 1949 and into the early 1980s, water levels in the central and southern subbasin area rose as imported Colorado River water began to recharge parts of the subbasin. Elsewhere in the subbasin during this time water levels continued to decline. Since the 1980s, water levels in the central and southern areas have declined despite Colorado River imports. These declines are largely due to increasing urbanization and groundwater pumping (DWR 2004).

GROUNDWATER SUSTAINABILITY

According to DWR, the Coachella Valley Groundwater Basin – Indio Subbasin is designated as a medium-priority basin. The SGMA requires GSAs in medium- or high-priority groundwater basins to have an approved GSP or Alternative Plan to manage the basin. The Indio Subbasin is unique in that it is one of only nine subbasins throughout the State with an approved Alternative Plan. SGMA also requires that a GSA or Agencies be established to develop and implement the plan. In the Indio Subbasin, Coachella Valley Water District (CVWD), Desert Water Agency (DWA), Coachella Water Authority (CWA), and Indio Water Authority (IWA) worked together as the Indio GSAs and updated their approved Alternative Plan to manage basin. The Alternative Plan Update was adopted and submitted to DWR in December 2021.

Coachella Valley Water District

The existing Ramon Substation and proposed expansion area are located within CVWD's water service area. The Coachella Valley Water District (CVWD) relies on four sources of water to provide service to its customers: groundwater, recycled water, imported water from the State Water Project and the Colorado River via the Coachella Canal, a branch of the All-American Canal (CVWD 2023).

3.15.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

State

Senate Bill 610

With the introduction of SB 610, any project under CEQA shall provide a WSA if:

- The project meets the definition of the Water Code Section 10912:

For the purposes of this part, the following terms have the following meanings:

(a) “Project” means any of the following:

- 1) A proposed residential development of more than 500 dwelling units.
- 2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- 3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- 4) A proposed hotel or motel, or both, having more than 500 rooms.
- 5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- 6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- 7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then “project” means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system’s existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system’s existing service connections.

After review of Water Code Section 10912, the proposed VEGA 6 project is deemed a “project” because it is a proposed industrial use occupying more than 40 acres of land per criterion 5 above.

California Water Code

Water Code Sections 10656 and 10657 restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resources. In addition, Water Code Section 10910 describes the WSA that must be undertaken for projects referred under PRC Section 21151.9, including an analysis of groundwater supplies. Water agencies are given 90 days from the start of consultation in which to provide a WSA to the CEQA lead agency. Water Code Section 10910 also specifies the circumstances under which a project for which a WSA was once prepared would be

required to obtain another assessment. Water Code Section 10631 directs that contents of the urban water management plans include further information on future water supply projects and programs and groundwater supplies.

Water Code Section 10910(f) paragraphs 1 through 5, as modified by SB 1262, state:

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied. (B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. (C) For a basin that has not been adjudicated that is a basin designated as high- or medium priority pursuant to Section 10722.4, information regarding the following: (i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924; and (ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan. (D) For a basin that has not been adjudicated that is a basin designated as low- or very-low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

The WSA prepared for the VEGA 6 project (Appendix K of this EIR) contains the additional information required pursuant to Water Code Section 10910(f).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) is comprised of a three-bill legislative package, including AB 1739, SB 1168, and SB 1319. SGMA requires local agencies to form groundwater sustainability agencies (GSAs) for the high and medium priority basins. GSAs develop and implement groundwater sustainability plans (GSPs) to avoid undesirable results and mitigate overdraft within 20 years (DWR 2023).

2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan

To implement SGMA in the Indio Subbasin, four local water agencies formed GSAs: CVWD, CWA, DWA, and IWA. In 2016, the Indio Subbasin GSAs entered into a Memorandum of Understanding for collaborative management of the Indio Subbasin under SGMA. On December 29, 2016, the Indio Subbasin GSAs submitted to the DWR the 2010 CVWMP, accompanied by a Bridge Document, as an Alternative Plan to a GSP for the Indio Subbasin. On July 17, 2019, DWR approved the 2010 CVWMP Update as an Alternative Plan. In compliance with SGMA, the GSAs have prepared Annual Reports which can be found on the program website (www.IndioSubbasinSGMA.org). SGMA also requires plan updates every 5 years. The Indio Subbasin Water Management Plan Update (Alternative Plan Update) fulfills that requirement (Indio Subbasin Groundwater Sustainability Agencies 2021).

The Alternative Plan Update incorporates a goal specifically for groundwater sustainability, which is to maintain a locally managed, economically viable, sustainable groundwater resource for existing and future beneficial uses in the Indio Subbasin by managing groundwater to avoid the occurrence of undesirable results. The planning process has demonstrated that with the proposed projects identified in the Alternative Plan Update, and despite anticipated climate changes, the Indio Subbasin GSAs are able to meet forecasted demands under a variety of conditions and maintain the Indio Subbasin in balance, even increasing groundwater storage over time (Indio Subbasin Groundwater Sustainability Agencies 2021).

Local

County of Imperial General Plan

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. Table 3.15-2 provides a consistency analysis of the applicable Imperial County General Plan goals and objectives from the Conservation and Open Space Element, and Renewable Energy and Transmission Element, as they relate to the proposed VEGA 6 project. While the EIR analyzes the VEGA 6 project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.15-1. Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element		
Preservation of Water Resources, Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	Water use for the VEGA 6 project site would be provided by a new well or wells that would be drilled and installed as part of the VEGA 6 project. Water would only be used during construction, periodically only as needed during operation, and decommissioning/restoration for non-drinking non-potable water needs.
Preservation of Water Resources, Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs.	Consistent	Currently, groundwater quality in the region is poor. The VEGA 6 project would be required to comply with NPDES permits and regulations to address pollutants from run-off that may result during construction and operation of the VEGA 6 project.
Renewable Energy and Transmission Element		
Objective 1.6: Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.	Consistent	Water use for the VEGA 6 project site would be provided by a new well or wells that would be drilled and installed as part of the VEGA 6 project. Water would only be used during construction, periodically only as needed during operation, and decommissioning/restoration for non-drinking non-potable water needs.

Source: ICPDS 1993
 IID = Imperial Irrigation District

3.15.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to utilities and service systems, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to utilities and service systems are considered significant if the following occur:

- Water Supply: have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years



Methodology

VEGA 6

The WSA (Appendix K of this EIR) was prepared using project-specific data to calculate the VEGA 6 project’s water consumption during construction and at build-out collectively (“operational”).

Ramon Substation Expansion

The analysis is based on a review of publicly available data including the Department of Water Resources’ Groundwater Bulletin and the 2022 Indio Subbasin Water Management Plan Update: Sustainable Groundwater Management Act Alternative Plan.

Impact Analysis

Impact 3.15-1 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

VEGA 6

As previously noted, the proposed VEGA 6 project is located outside of IID’s Imperial Unit and therefore, the VEGA 6 project does not receive water service from IID. Furthermore, there is not a public water system that would serve the VEGA 6 project. Water for the VEGA 6 project will be provided by a new on-site groundwater supply well or wells that would be drilled and installed as part of the VEGA 6 project.

CONSTRUCTION

The proposed VEGA 6 project is anticipated to take approximately 12-18 months from the commencement of the construction process to complete. During construction, water is required for dust control and soil conditioning during installation of the PV panels, battery storage units, and related infrastructure. The construction water demand is primarily for dust control. Thus, the water needs are proportional to the size of the disturbed area and the local climate. The construction water demand of the VEGA 6 project is estimated to be 160 AF, with an additional 10 AF required for dust control on offsite access roads that are not paved. Thus, as indicated in Table 3.15-2, the full construction water requirements are 170 acre-feet. Thus, the monthly water demand during that period may range from 9.4 AF to 14.2 AF, on average (Appendix K of this EIR).

Table 3.15-2. VEGA 6 Project Water Demand

Site	Area (acres)	Output (megawatts)	Construction Water (AF)	Operational Water (AF per year)
VEGA 6	320	80	170	8

Source: Appendix K of this EIR
 AF = Acre-feet

The construction water demand represents 1.0 percent of the average annual increase in groundwater storage of 17,000 AF per year and 0.0015 percent of the volume of groundwater in storage in the Basin (accounting for the groundwater level decline from 1974 to 2022). Furthermore, the construction water needs are short-term and temporary. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels.

OPERATIONS AND MAINTENANCE

The operational water demand for panel washing and other maintenance needs is based primarily on the number of panels, which relates to the energy production or output, in megawatts. As shown in Table 3.15-2, the operational water demand is anticipated to be 8 acre-feet per year. Maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year. The operational water demand will occur throughout the life of the VEGA 6 project which is anticipated to be 25 to 30 years.

The annual operational water needs are equivalent to 0.05 percent of the average annual increase in groundwater storage of 17,000 AF per year and 0.00008 percent of the volume of groundwater in storage in the Basin (accounting for the groundwater level decline from 1974 to 2022). Therefore, the long-term operation and maintenance of the VEGA 6 project would not have any measurable effect or impact on groundwater resources in the Basin.

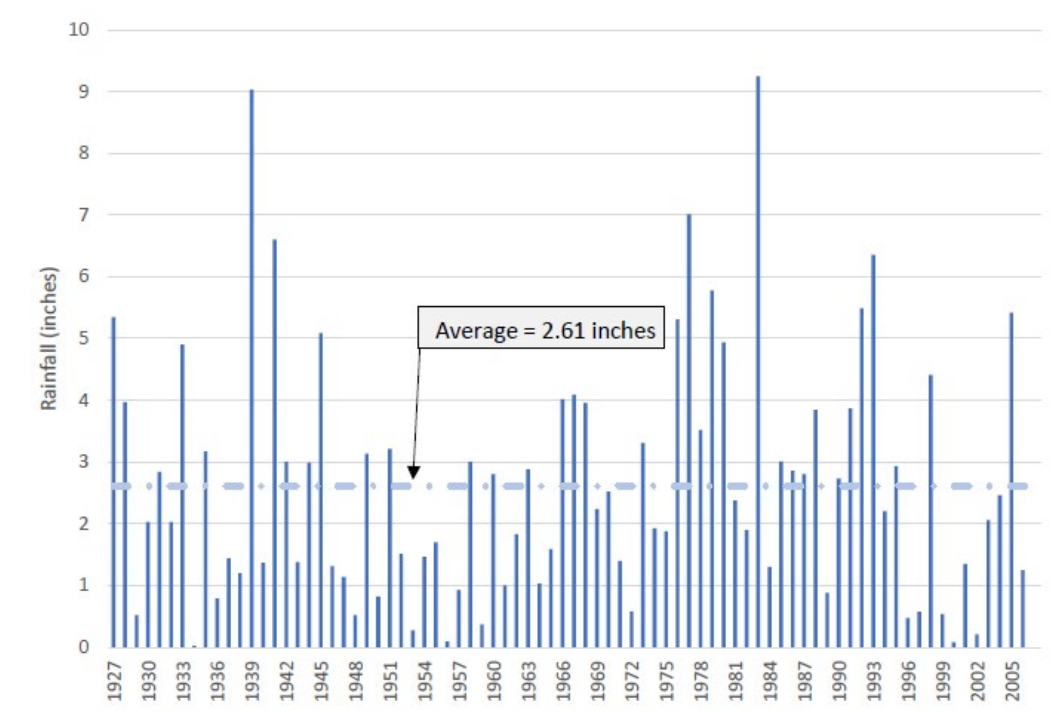
DRY YEAR SUPPLY

Local rainfall data were obtained from the Western Region Climate Center for the Brawley 2 SW meteorological station in Brawley, California, located approximately 15 miles east of the VEGA 6 project site. Figure 3.15-2 shows the annual water year rainfall for the Brawley 2 SW station from 1927 through 2007. The average water year rainfall during this period is 2.61 inches. The driest year was 2007, when no precipitation was recorded. The driest year with recorded rainfall was 1934, with only 0.2 inch of rainfall reported. The wettest year was 1983, when 9.25 inches of rain were measured. As indicated on Figure 3.15-2, a relatively wet period occurred from 1976 to 1986, with 14 of 18 water years exceeding the average annual rainfall. In comparison, the period from 1996 to 2012 was relatively dry, with 10 of 12 water years having below normal rainfall (Appendix K of this EIR).

The historic rainfall data on Figure 3.15-2 can be compared with the groundwater levels shown on Figure 3.15-1 to assess the effects of wet and dry periods on groundwater supply in the Basin. The wettest year recorded, 1983, and the relatively wet period from 1976 to 1986, correspond to a period when groundwater levels were consistently declining. During the dry period from 1996 to 2016, groundwater levels were also declining, but at a rate that was slightly less than during the wet period from 1976 to 1986. The relatively large decrease in groundwater levels between 1992 and 1994 corresponds to a period with above-normal rainfall. Thus, the available groundwater level and rainfall data do not indicate any relationship between wet, normal, single dry year, or multiple dry years and available groundwater supply. This is due to the recharge of groundwater primarily occurring through deep percolation of applied irrigation water and lateral inflow from adjacent groundwater basins.

The total groundwater storage capacity of the Basin is estimated to be 14,000,000 AF and the average annual increase in groundwater storage is estimated to be 17,000 AF per year. While the groundwater elevation data shown on Figure 3.15-1 indicates that there may have been a loss of groundwater in storage of up to 17 percent, the construction water demand of 170 AF and the annual operational water needs of 8 AF are miniscule (0.0015 percent and 0.00008 percent, respectively) compared to the available groundwater in storage after accounting for the potential 17 percent reduction indicated from Figure 3.15-1. Overall, there is adequate water available to supply the VEGA 6 project water needs during single dry year and multiple dry year periods (Appendix K of this EIR).

Figure 3.15-2. Water Year Rainfall at Brawley 2 SW



Source: Appendix K of this EIR

Based on the analysis above, there is sufficient water available for anticipated future water demands in the Basin to accommodate the proposed VEGA 6 project during normal, single dry year, and multiple dry year periods for the lifetime of the VEGA 6 project. As such, impacts would be less than significant.

Ramon Substation Expansion

CONSTRUCTION

The proposed Ramon Substation expansion is anticipated to take approximately 180 working days from the commencement of the construction process to complete. During construction, water is required for dust control and soil conditioning. The construction water demand is primarily for dust control. No groundwater use is proposed, water would be obtained from a municipal source. Therefore, no significant impact would occur.

OPERATIONS AND MAINTENANCE

The proposed Ramon Substation expansion would not induce population growth as no new residential uses are proposed. Therefore, the proposed expansion would not require new and expanded entitlements. The proposed expansion area would tie into an existing water line at the existing Ramon Substation. No additional operations and maintenance building or restroom would be required necessitating additional water demand. Therefore, no significant impact would occur.

Mitigation Measure(s)

VEGA 6

No mitigation measures are required.

Ramon Substation Expansion

No mitigation measures are required.

3.15.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Total water demand during decommissioning would be similar during construction. Therefore, it is assumed that the water demand during decommissioning would be 170 AF. As described above, there will be sufficient water available for existing water uses in the Basin, along with the project's water demands during normal, single dry year, and multiple dry year periods for the anticipated life of the project. The proposed VEGA 6 project would have sufficient water supplies available to serve the project from existing entitlements and resources, and impacts would be less than significant.

Residual

The proposed project would not result in significant impacts on the water supply of Imperial County; therefore, no mitigation is required. The proposed project will not result in residual impacts.

4 Analysis of Long-Term Effects

4.1 Growth-Inducing Impacts

In accordance with Section 15126.2(e) of CEQA Guidelines, an EIR must:

“discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth ... Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

Projects promoting direct growth will impose burdens on a community by directly inducing an increase in population or resulting in the construction of additional developments in the same area. For example, projects involving expansions, modifications, or additions to infrastructure, such as sewer, water, and roads, could have the potential to directly promote growth by removing existing physical barriers or allowing for additional development through capacity increases. New roadways leading into a previously undeveloped area directly promote growth by removing previously existing physical barriers to development and a new wastewater treatment plant would allow for further development within a community by increasing infrastructure capacity. Because these types of infrastructure projects directly serve related projects and result in an overall impact to the local community, associated impacts cannot be considered isolated. Indirect growth typically includes substantial new permanent employment opportunities and can result from these aforementioned modifications.

4.1.1 VEGA 6

The proposed VEGA 6 project is located within the unincorporated area of Imperial County and it does not involve the development of permanent residences that would directly result in population growth in the area. The unemployment rate in Imperial County as of December 2023 was 18.3 percent (State of California Employment Development Department 2024a). The applicant expects to utilize construction workers from the local and regional area, a workforce similar to that involved in the development of other utility-scale solar facilities. Based on the unemployment rate, and the availability of the local workforce, construction of the proposed VEGA 6 project would not have a growth-inducing effect related to workers moving into the area and increasing the demand for housing and services.

Once construction is completed, the proposed solar facility would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Security personnel may conduct unscheduled security rounds and would be dispatched to the project site in response to a fence breach or other alarm. It is anticipated that maintenance of the facility would require minimal site presence to perform periodic visual inspections and minor repairs. On intermittent occasions, the presence of additional workers may be required for repairs or replacement of equipment and panel cleaning; however, because of the nature of the facilities, such actions would likely occur infrequently. Overall, minimal maintenance requirements are anticipated. The proposed VEGA 6 project would not result in

substantial population growth, as the number of employees required to operate and maintain the facility is minimal.

While the proposed VEGA 6 project would contribute to energy supply, which indirectly supports population growth, the proposed VEGA 6 project is a response to the state's need for renewable energy to meet its Renewable Portfolio Standard, and while it would increase the availability of renewable energy, it would also replace existing sources of non-renewable energy. Unlike a gas-fired power plant, the proposed VEGA 6 project is not being developed as a source of base-load power in response to growth in demand for electricity. The power generated would be added to the state's electricity grid with the intent that it would displace fossil fueled power plants and their associated environmental impacts, consistent with the findings and declarations in SB X1-2 that a benefit of the Renewable Portfolio Standard is displacing fossil fuel consumption within the state. The VEGA 6 project is being proposed in response to state policy and legislation promoting development of renewable energy.

The proposed VEGA 6 project would supply energy to accommodate and support existing demand and projected growth, but the energy provided by the project would not foster any new growth because (1) the additional energy would be used to ease the burdens of meeting existing statewide energy demands within and beyond the area of the VEGA 6 project site; (2) the energy would be used to support already-projected growth; or, (3) the factors affecting growth are so diverse that any potential connection between additional energy production and growth would necessarily be too speculative and uncertain to merit further analysis.

Under CEQA, an EIR should consider potentially significant energy implications of a project (CEQA Guidelines Appendix F(II); PRC Section 21100(b)(3)). However, the relationship between the proposed project's increased electrical capacity and the growth-inducing impacts outside the surrounding area is too speculative and uncertain to warrant further analysis. When a project's growth-inducing impacts are speculative, the lead agency should consider 14 CCR Section 15145, which provides that, if an impact is too speculative for evaluation, the agency should note this conclusion and terminate discussion of the impact. As the court explained in *Napa Citizens for Honest Gov't v. Napa County Board of Supervisors*, 91 Cal. App.4th 342, 368: "Nothing in the Guidelines, or in the cases, requires more than a general analysis of projected growth" *Napa Citizens*, 91 CA4th at 369. The problem of uncertainty of the proposed project's growth-inducing effects cannot be resolved by collection of further data because of the diversity of factors affecting growth.

While this document has considered that the proposed VEGA 6 project, as an energy project, might foster regional growth, the particular growth that could be attributed to the proposed project is unpredictable, given the multitude of variables at play, including uncertainty about the nature, extent, and location of growth and the effect of other contributors to growth besides the proposed project. No accurate and reliable data is available that could be used to predict the amount of growth outside the area that would result from the proposed project's contribution of additional electrical capacity. The County of Imperial has not adopted a threshold of significance for determining when an energy project is growth-inducing. Further evaluation of this impact is not required under CEQA.

Additionally, the VEGA 6 project would not involve the development of any new local or regional roadways, new water systems, or sewer; and thus, the VEGA 6 project would not further facilitate additional development into outlying areas. For these reasons, the proposed VEGA 6 project would not be growth-inducing.

4.1.2 Ramon Substation Expansion

Development of housing is not proposed as part of the proposed Ramon Substation expansion. The unemployment rate in the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (Riverside and San Bernardino Counties) as of December 2023 was 5.2 percent (State of California Employment Development Department 2023b). IID expects to utilize construction workers from the local and regional area, a workforce similar to that involved in the development of other utility-scale facilities. Based on the unemployment rate in Riverside County (5.2 percent) (State of California Employment Development Department 2024b), and the availability of the local workforce, construction of the proposed Ramon Substation expansion would not have a growth-inducing effect.

The proposed Ramon Substation expansion would not require any long-term employees during operations. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the proposed expansion area. Therefore, the proposed expansion would not result in a substantial growth in the area.

Energy generated by VEGA 6 will be transmitted to IID's existing 161 kV "L" Line, with ultimate delivery to IID's Ramon Substation in Riverside County. IID has identified that upgrades to the Ramon Substation will be required in order to accommodate several planned utility-scale projects, including VEGA 6.

Under CEQA, an EIR should consider potentially significant energy implications of a project (CEQA Guidelines Appendix F(II); PRC Section 21100(b)(3)). However, the relationship between the proposed project's increased electrical capacity and the growth-inducing impacts outside the surrounding area is too speculative and uncertain to warrant further analysis. When a project's growth-inducing impacts are speculative, the lead agency should consider 14 CCR Section 15145, which provides that, if an impact is too speculative for evaluation, the agency should note this conclusion and terminate discussion of the impact. As the court explained in *Napa Citizens for Honest Gov't v. Napa County Board of Supervisors*, 91 Cal. App.4th 342, 368: "Nothing in the Guidelines, or in the cases, requires more than a general analysis of projected growth" *Napa Citizens*, 91 CA4th at 369. The problem of uncertainty of the proposed project's growth-inducing effects cannot be resolved by collection of further data because of the diversity of factors affecting growth.

While this document has considered that the Ramon Substation expansion might foster regional growth, the particular growth that could be attributed is unpredictable, given the multitude of variables at play, including uncertainty about the nature, extent, and location of growth and the effect of other contributors to growth besides the Ramon Substation expansion. No accurate and reliable data is available that could be used to predict the amount of growth outside the area that would result from the proposed expansion's contribution of additional electrical capacity. Further evaluation of this impact is not required under CEQA.

Additionally, the proposed Ramon Substation expansion would not involve the development of any new local or regional roadways, new water systems, or sewer; and thus, the proposed expansion would not further facilitate additional development into outlying areas. For these reasons, the proposed Ramon Substation expansion would not be growth-inducing.

4.2 Significant Irreversible Environmental Changes

In accordance with CEQA Guidelines Section 15126.2(d), an EIR must identify any significant irreversible environmental changes that would be caused by implementation of the proposed project

being analyzed. Irreversible environmental changes may include current or future commitments to the use of non-renewable resources or secondary growth-inducing impacts that commit future generations to similar uses.

4.2.1 VEGA 6

Energy resources needed for the construction of the proposed VEGA 6 project would contribute to the incremental depletion of renewable and non-renewable resources. Resources, such as timber, used in building construction are generally considered renewable and would ultimately be replenished. Non-renewable resources, such as petrochemical construction materials, steel, copper, lead and other metals, gravel, concrete, and other materials, are typically considered finite and would not be replenished over the lifetime of the project. Thus, the VEGA 6 project would irretrievably commit resources over the anticipated 30-year life of the project.

At the end of the VEGA 6 project's operation term, the applicant may determine that the VEGA 6 project should be decommissioned and deconstructed. Should the VEGA 6 project be decommissioned, the project applicant is required to restore land to its pre-project state. Consequently, some of the resources on the site could potentially be retrieved after the site has been decommissioned. Concrete footings, foundations, and pads would be removed and recycled at an off-site location. All remaining components would be removed, and all disturbed areas would be reclaimed and recontoured. The applicant anticipates using the best available recycling measures at the time of decommissioning.

Implementation and operation of the proposed VEGA 6 project would promote the use of renewable energy and contribute incrementally to the reduction in demand for fossil fuel use for electricity-generating purposes. Therefore, the incremental reduction in fossil fuels would be a positive effect of the commitment of nonrenewable resources. Additionally, the VEGA 6 project is consistent with the state's definition of an "eligible renewable energy resource" in Section 399.12 of the California Public Utilities Code and the definition of "in-state renewable electricity generation facility" in Section 25741 of the California PRC.

4.2.2 Ramon Substation Expansion

Energy resources needed for the construction of the Ramon Substation expansion would contribute to the incremental depletion of renewable and non-renewable resources. Resources, such as timber, used in building construction are generally considered renewable and would ultimately be replenished. Non-renewable resources, such as petrochemical construction materials, steel, copper, lead and other metals, gravel, concrete, and other materials, are typically considered finite and would not be replenished over the lifetime of the project. Thus, the proposed Ramon Substation expansion would irretrievably commit resources over its lifetime.

4.3 Significant and Unmitigable Impacts

In accordance with CEQA Guidelines Section 15126(c), EIRs must include a discussion of significant environmental effects that cannot be avoided if the proposed project is implemented.

4.3.1 VEGA 6

The impact analysis, as detailed in Section 3 of this EIR, concludes that no significant and unmitigable impacts were identified for the VEGA 6 project. Where significant impacts have been identified,

mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant.

4.3.2 Ramon Substation Expansion

The impact analysis, as detailed in Section 3 of this EIR, concludes that no significant and unmitigable impacts were identified for the proposed Ramon Substation expansion. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant.

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5 Cumulative Impacts

The CEQA Guidelines (Section 15355) define a cumulative impact as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” The CEQA Guidelines [Section 15130(a)(1)] further states that “an EIR should not discuss impacts which do not result in part from the project.”

Section 15130(a) of the CEQA Guidelines provides that “[A]n EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable...” Cumulatively considerable, as defined in Section 15065(a)(3), “means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

An adequate discussion of significant cumulative impacts requires either: (1) “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; or (2) “a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.”

The CEQA Guidelines recognize that cumulative impacts may require mitigation, such as new rules and regulations that go beyond project-by-project measures. An EIR may also determine that a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project’s contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The Lead Agency must identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable (CEQA Guidelines Section 15130(a)(3)).

This EIR evaluates the cumulative impacts of the project for each resource area, using the following steps:

1. Define the geographic and temporal scope of cumulative impact analysis for each cumulative effects issue, based on the project’s reasonably foreseeable direct and indirect effects.
2. Evaluate the cumulative effects of the project in combination with past and present (existing) and reasonably foreseeable future projects and, in the larger context of the Imperial Valley.
3. Evaluate the project’s incremental contribution to the cumulative effects on each resource considered in Chapter 3, Environmental Analysis. When the project’s incremental contribution to a significant cumulative impact is considerable, mitigation measures to reduce the project’s “fair share” contribution to the cumulative effect are discussed, where required.

5.1 Geographic Scope and Timeframe of the Cumulative Effects Analysis

The geographic area of cumulative effects varies by each resource area considered in Chapter 3. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. Similarly, impacts on the habitats of special-status wildlife species need to be considered within its range of movement and associated habitat needs.

The analysis of cumulative effects in this EIR considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the project site and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects of a project, but not beyond the scope of the direct and indirect effects of that project.

The cumulative development scenario includes projects that extend through year (2030), which is the planning horizon of the County of Imperial General Plan. Because of uncertain development patterns that are far in the future, it is too speculative to accurately determine the type and quantity of cumulative projects beyond the planning horizon of the County's adopted County General Plan. Evaluating the proposed project's cumulative impacts when future facility decommissioning occurs is highly speculative because decommissioning is expected to occur in 20 to 25 years' time. Therefore, cumulative impacts during decommissioning are speculative for detailed consideration in this analysis.

5.2 Projects Contributing to Potential Cumulative Impacts

The CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the projects are to be considered: the use of a list of past, present, and probable future projects (the "list approach") or the use of adopted projections from a general plan, other regional planning document, or certified EIR for such a planning document (the "plan approach").

For this EIR, the list approach has been utilized to generate the most reliable future projections of possible cumulative impacts. When the impacts of the project are considered in combination with other past, present, and future projects to identify cumulative impacts, the other projects considered may also vary depending on the type of environmental impacts being assessed. As described above, the general geographic area associated with different environmental impacts of the project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis.

5.3 Cumulative Impact Analysis

This cumulative impact analysis utilizes an expanded list method (as defined under CEQA) and considers environmental effects associated with those projects identified in Table 5-1 in conjunction with the impacts identified for the project in Chapter 3 of this EIR. Table 5-1 includes projects known at the time of release of the NOP of the Draft EIR, as well as additional projects that have been proposed since the NOP date.



Table 5-1. Projects Considered in the Cumulative Impact Analysis

No.	Project Name	Project Type	Distance from Project Site (miles)	Size (acres)	Capacity (MW)	Status ¹
1	Seville Solar	PV Solar Facility	18.6	1,238	Various depending on lot – from 20 MW up to 38 MW	Operational
2	Titan II Solar	Battery Storage	17.2	Within 532-acre site	40	Pending Entitlement
3	Titan III Solar	PV Solar Facility	19.3	185	20	Pending Entitlement
4	Orni 18	Geothermal Plant	8.8			Operational
5	Brawley Solar	PV Solar Facility	10.4	227	40	Approved – Not Built

² – Project status based on information provided by County staff and on Imperial County Planning & Development Service’s RE Geographic Information System Mapping Application (<https://icpds.maps.arcgis.com/apps/webappviewer/index.html?id=0d869c18d11645cc918391fdcac24b80>). Accessed on November 8, 2023.

MW – megawatts; PV – photovoltaic

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5.3.1 Aesthetics

The cumulative study area for projects considered in the visual resources cumulative impact analysis considers a 5-mile radius from the project site. Views beyond 5 miles are obstructed by a combination of the flat topography coupled with the Earth's curvature. The short-term visual impacts of the project would be in the form of general construction activities including grading, use of construction machinery, and installation of the transmission poles and stringing of transmission lines, but would only be available to a very limited amount of people and would have to be in relative close proximity to the project site. Longer-term visual impacts of the project would be in the form of the presence of solar array grids, an electrical distribution and transmission system, BESS and substation.

As provided in Section 3.2, Aesthetics, implementation of the proposed project would change the natural conditions of the site with development of a solar energy and battery storage facility. Onsite vegetation would be completely removed, and the site would be graded to accommodate the installation of PV module frames in arrays. The visual changes associated with the project would be located in a remote area viewed by a minimal number of people, the project site is not located within scenic vistas, and is not readily viewable from any frequently travelled interstates or scenic highways. Further, the project site would be restored to their existing condition following the decommissioning of the solar use. As a result, although the visual character of the project site would change from undeveloped to one with developed characteristics, a less than significant impact associated with the proposed project has been identified.

Development of the proposed project in conjunction with the cumulative projects identified in Table 5-1 will gradually change the visual character of this portion of the Imperial Valley. However, projects located within private lands and/or under the jurisdiction of the County of Imperial are being designed in accordance with the County of Imperial's General Plan and Land Use Ordinance, which includes policies to protect visual resources in the County.

Finally, all projects listed in Table 5-1 would not produce a substantial amount of light and glare, as no significant source of light or glare is proposed; or the project will otherwise comply with the County lighting ordinance, as would all other related projects. Based on these considerations, there would be no significant cumulatively considerable aesthetic impact, and cumulative aesthetic impacts would be less than significant.

5.3.2 Air Quality

Imperial County is used as the geographic scope for analysis of cumulative air quality impacts. As shown in Table 5-1, many of the cumulative projects are renewable energy generation projects, where the main source of air emissions would be generated during the construction phases of these projects; however, there would also be limited operational emissions associated with operations and maintenance activities for these facilities. Additionally, two of the five cumulative projects (Seville Solar and Orni 18 Geothermal Plant) listed in Table 5-1 are already constructed and operational. The remaining cumulative projects are either pending entitlement or approved and not constructed, and not anticipated to involve overlapping construction activities with the proposed project. Therefore, the potential for a cumulative, short-term air quality impact as a result of construction activities is anticipated to be less than significant.

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollutant standards with the exception of 8-Hour O₃ and PM_{2.5}. On November 13, 2009, EPA published Air Quality Designations for the 2006 24-Hour Fine Particle (PM_{2.5}) NAAQS wherein Imperial County was

listed as designated nonattainment for the 2006 24-hour PM_{2.5} NAAQS. However, the nonattainment designation for Imperial County is only for the urban area within the County and it has been determined that the proposed project is not located within the nonattainment boundaries for PM_{2.5}.

The AQAP for the SSAB, through the implementation of the AQMP and SIP for PM₁₀, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. With respect to PM₁₀, the ICAPCD implements Regulation VIII – Fugitive Dust Rules, to control these emissions and ultimately lead the basin into compliance with air standards, consistent with the AQAP. Within Regulation VIII are Rules 800 through 806, which address construction and earthmoving activities, bulk materials, carry-out and track-out, open areas, paved and unpaved roads, and conservation management practices. Best Available Control Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area;
- Application of water or chemical stabilizers to disturbed soils;
- Construction and maintenance of wind barriers; and
- Use of a track-out control device or wash down system at access points to paved roads.

Compliance with Regulation VIII is mandatory on all construction sites, regardless of size. However, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the air district is required 10 days prior to the commencement of any construction activity.

Construction

The proposed project would generate air emissions due to vehicle and dust emissions associated with construction activities. Similar effects would also be realized upon site decommissioning, which would be carried out in conjunction with the project's restoration plan, and subject to applicable ICAPCD standards. Likewise, the other cumulative projects that are approved, but not yet built or pending entitlement identified in Table 5-1 would result in the generation of air emissions during construction activities.

With respect to the proposed project, during the construction and decommissioning phases, the project would generate PM₁₀, PM_{2.5}, ROG, CO, SO₂, and NO_x emissions during each active day of construction. As discussed in Section 3.3, Air Quality, the proposed project's daily construction emissions would not exceed the ICAPCD thresholds for ROG, NO_x, CO, SO₂, and PM_{2.5}. However, the proposed project's daily construction emissions would exceed the ICAPCD threshold for PM₁₀ and represents a significant air quality impact. The proposed project's impact could be cumulatively considerable because the Imperial County portion of the SSAB are nonattainment already for O₃ and PM₁₀ under state standards and for O₃ and PM_{2.5} federal standards. Thus, existing O₃ and PM₁₀ levels in the SSAB are at unhealthy levels during certain periods. Additionally, the cumulative construction effects could again be experienced in the future during decommissioning and site restoration activities.

Several of the projects listed in Table 5-1 are already constructed and in operation. In the event the proposed project is constructed in conjunction with those pending entitlement or approved for construction, each project would be subject to mitigation pursuant to ICAPCD's Regulations. Therefore, the cumulative impact would be reduced to a level less than significant through compliance

with these measures. Further, because the proposed project will be required to implement measures consistent with ICAPCD regulations designed to alleviate the cumulative impact associated with fugitive dust (PM₁₀) and NO_x, the project's contribution would be rendered less than cumulatively considerable and is therefore, less than significant.

Operation

As the proposed project would have no major stationary emission sources and would require minimal vehicular trips, operation of the proposed solar facility would result in substantially lower emissions than project construction. The project's operational emissions would not exceed the Tier I thresholds; therefore, the impact would be less than significant. Operational impacts of other renewable energy facilities identified in Table 5-1 would also be similar. Although these cumulative projects generally involve large areas, their operational requirements are very minimal, requiring minimal staff or use of machinery or equipment that generate emissions. Further, alternative energy projects, such as the project, would assist attainment of regional air quality standards and improvement of regional air quality by providing clean, renewable energy sources. Consequently, the projects would provide a positive contribution to the implementation of applicable air quality plan policies and compliance with EO S-3-05.

However, from a cumulative air quality standpoint, the potential cumulative impact associated with the generation of O₃, PM_{2.5} and PM₁₀ emissions during operation of the cumulative projects is a consideration because existing O₃ and PM₁₀ levels in the SSAB are at unhealthy levels during certain periods. Imperial County is classified as non-attainment for PM_{2.5} for the urban areas of Imperial County. However, the project's operational contribution to O₃, PM_{2.5} and PM₁₀ would be below a level of significance. As with the construction phases, the cumulative projects would be required to comply with ICAPCD's Regulation VIII for dust control (Regulation VIII applies to both the construction and operational phases of projects). As a result, the ICAPCD would be required to comply with the various dust control measures and to prepare and implement operational dust control plans as approved by the ICAPCD, which is a component of ICAPCD's overall framework of the AQAP that sets forth a comprehensive program for SSAB's compliance with all federal and state air quality standards. Therefore, the project would not contribute to long-term cumulatively considerable air quality impacts and the projects would not result in cumulatively significant air quality impacts, and cumulative impacts would be less than significant.

5.3.3 Biological Resources

The geographic scope for considering cumulative impacts on biological resources includes the Imperial Valley and related biological habitats. Table 5-1 lists the projects considered for the biological resources cumulative impact analysis.

In general terms, in instances where a potential impact could occur, CDFW and USFWS have promulgated a regulatory scheme that limits impacts on these species. The effects of the project would be rendered less than significant through mitigation requiring compliance with all applicable regulations that protect plant, fish, and animal species, as well as waters of the U.S. and state. Other cumulative projects would also be required to avoid impacts on special-status species and/or mitigate to the satisfaction of the CDFW and USFWS for the potential loss of habitat. As described in Section 3.4, Biological Resources, the projects has the potential to result in impacts on biological resources. These impacts are generally associated with the potential construction-related effects to burrowing owl and bird species.

Burrowing Owls are protected by the CDFW mitigation guidelines for burrowing owl (CDFW 2012) and Consortium guidance (1993), which require a suite of mitigation measures to ensure direct effects to burrowing owls during construction activities are avoided and indirect effects through burrow destruction and loss of foraging habitat are mitigated at prescribed ratios. Mitigation measures identified in Section 3.4, Biological Resources, contain these requirements thereby minimizing potential impacts on these species to a less than significant level. Additionally, as provided in Section 3.4, Biological Resources, special-status bird species have a potential to be present. In addition, several common bird species could nest on the project site. As a result of project-related construction activities, one or more of these species could be impacted. However, with the implementation of mitigation as identified in Section 3.4, Biological Resources, these impacts would be reduced to a level of less than significant, primarily through avoidance of direct and indirect impacts to these species via pre-construction surveys and monitoring requirements during construction. Similarly, the cumulative projects within the geographic scope of the project would be required to comply with the legal framework as described above, and similar avoidance and minimization measures. Based on these considerations, impacts on biological resources would not be cumulatively considerable.

As with the proposed project, each of the cumulative projects would be required to provide mitigation for impacts on biological resources. The analysis below is conducted qualitatively and in the context that the cumulative projects would be subject to a variety of statutes and administrative frameworks that require mitigation for impacts on biological resources.

Birds listed at 50 CFR 10.3 are protected by the MBTA (16 USC 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of Birds listed at 50 CFR 10.3 are protected by the MBTA (16 USC 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The MBTA is enforced by USFWS. This act prohibits the killing of any migratory birds without a valid permit. Any activity which contributes to unnatural migratory bird mortality could be prosecuted under this act. With few exceptions, most birds are considered migratory under this act. Raptors and active raptor nests are protected under California FGCs 3503.5, 3503, and 3513.

The CWA and California's Porter-Cologne Water Quality Control Act provide protection for water-related biological resources by controlling pollution, setting water quality standards, and preventing jurisdictional streams, lakes, and rivers from being filled without a federal permit. Drainages ultimately flow into the Salton Sea, which is considered a Traditionally Navigable Water. As such, these drainage features would likely be considered federally and state jurisdictional. Consultation will be initiated with USACE and CDFW to avoid or minimize impacts upon federally and state jurisdictional drainage features.

The proposed project would comply with these and other laws, regulations and guidelines and therefore would not contribute substantially to a cumulative biological resources impact. Similarly, the cumulative projects within the geographic scope of the proposed project will be required to comply with the legal frameworks set forth above, as well as others, and will be required to mitigate their impacts to a less than significant level. Therefore, the project would not contribute to a cumulatively considerable impact to biological resources, and cumulative impacts would be less than significant.

5.3.4 Cultural Resources

As described in Section 3.5, Cultural Resources, 39 new cultural resources were identified within the VEGA 6 Survey Area. None of the newly recorded resources within the VEGA 6 Survey Area have been evaluated using NRHP and CRHR eligibility criteria; therefore, it is not currently known if any of

these are considered historical resources under CEQA. Based on this, implementation of the VEGA 6 project could potentially cause a substantial adverse change in the significance of historical resources. The potential impact is considered significant. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce the potential impact associated with historical resources to a level less than significant. Although unlikely, the potential for unearthing a previously-undiscovered archaeological resource during construction does exist. This potential impact is considered significant. However, implementation of Mitigation Measures CUL-3 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant. Implementation of Mitigation Measure CUL-4 would reduce potential impacts on human remains to a level less than significant.

Future projects with potentially significant impacts on cultural resources would be required to comply with federal, state, and local regulations and ordinances protecting cultural resources through implementation of similar project-specific mitigation measures during construction. Therefore, through compliance with regulatory requirements, standard conditions of approval, and Mitigation Measures CUL-1 through CUL-4, the proposed project would have a less than cumulatively considerable contribution to impacts on cultural resources.

During operations and decommissioning of the project, no additional impacts on archeological resources would be anticipated because the soil disturbance would have already occurred and been mitigated during construction.

5.3.5 Geology and Soils

The Imperial Valley portion of the Salton Trough physiographic province of Southern California is used as the geographic scope for the analysis of cumulative impacts on geology/soils. Cumulative development would result in an increase in population and development that could be exposed to hazardous geological conditions, depending on the location of proposed developments. Geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts on geologic resources would be considered significant if the project would be impacted by geologic hazard(s) and if the impact could combine with off-site geologic hazards to be cumulatively considerable. None of the projects identified within the geographic scope of potential cumulative impacts would intersect or be additive to the project's site-specific geology and soils impacts; therefore, no cumulatively considerable effects are identified for geology/soils, and cumulative impacts would be less than significant.

Development of the proposed project, in combination with other projects in the area, has the potential to contribute to a cumulatively significant paleontological resources impact due to the potential loss of paleontological resources unique to the region. However, mitigation is included in this EIR to reduce potentially significant project impacts to paleontological resources during construction of the proposed project. Implementation of Mitigation Measure GEO-2 would ensure that the potential impacts on paleontological resources do not rise to the level of significance. Future projects with potentially significant impacts on paleontological resources would be required to comply with federal, state, and local regulations and ordinances protecting paleontological resources through implementation of similar project-specific mitigation measures during construction. Therefore, through compliance with regulatory requirements, standard conditions of approval, and Mitigation Measure GEO-2, the proposed project would have a less than cumulatively considerable contribution to impacts on paleontological resources.

5.3.6 Greenhouse Gas Emissions

Emissions of GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Although the emissions of the projects alone would not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; affect rainfall and snowfall, leading to changes in water supply; and affect habitat, leading to adverse effects on biological resources. MDAQMD has proposed a threshold of 100,000 MTCO₂e per year, for residential and commercial projects; which was applied to the project's analysis as provided in Section 3.7, Greenhouse Gases. As provided, the proposed project's CO₂ emissions would not exceed MDAQMD's threshold of 100,000 MTCO₂e per year. As the project's emissions do not exceed the MDAQMD's threshold, the proposed project would not result in a cumulatively considerable impact to GHG emissions and would not conflict with the State GHG reduction targets. Other cumulative projects identified in Table 5-1 largely consist of utility-scale solar facilities. The nature of these projects is such that, like the project, they would be consistent with the strategies of the Climate Change Scoping Plan. In order to meet the AB 32 GHG emissions reduction mandate, the Scoping Plan relies on achievement of the RPS target of 33 percent of California's energy coming from renewable sources by 2020 and 50 percent by 2030. The RPS target was updated in September 2018 under SB 100 to 60 percent by 2030. The project and other similar projects are essential to achieving the RPS.

Given that the project is characterized as a renewable energy project and places emphasis on solar power generation, project operations would be almost carbon-neutral with the majority of the operational GHG emissions associated with vehicle trips. Based on these considerations, no significant long-term operational GHG impacts would occur and, therefore, project-related GHG impacts would not be cumulatively considerable.

5.3.7 Hazards and Hazardous Materials

The geographic scope considered for cumulative impacts from health, safety, and hazardous materials is the area within 1 mile of the boundary of the project site. One mile is the standard American Society of Testing and Materials (ASTM) standard search distance for hazardous materials.

Under cumulative conditions, implementation of the project in conjunction with the projects listed in Table 5-1 is not anticipated to present a public health and safety hazard to residents. Additionally, the project and related projects would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction, operation, and decommissioning. Impacts from these activities are less than significant for the project because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various Federal, state, and local laws, regulations, and policies. It is foreseeable that the project and related projects would implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the related projects would not cause a cumulative impact, and the project would not result in a cumulatively considerable incremental contribution to a cumulative impact related to use or routine transport of hazardous materials.

5.3.8 Hydrology and Water Quality

Table 5-1 lists the projects considered for the hydrology and water quality cumulative impact analysis. The geographic scope for considering cumulative hydrology and water quality impacts is the Imperial Valley Hydrologic Unit as defined by the Colorado Basin RWQCB Basin Plan.

The construction of the project is expected to result in short-term water quality impacts. Compliance with the SWRCB's NPDES general permit for activities associated with construction (2009-0009-DWQ) per Mitigation Measure HYD-1 would reduce water quality impacts. As with the proposed project, each of the cumulative projects would be required to comply with the Construction General Permit. The SWRCB has determined that the Construction General Permit protects water quality, is consistent with the CWA, and addresses the cumulative impacts of numerous construction activities throughout the state. This determination in conjunction with the implementation of mitigation would ensure short-term water quality impacts are not cumulatively considerable.

The project is not expected to result in long-term operations-related impacts related to water quality. The project would mitigate potential water quality impacts by implementing site design, source control, and treatment control BMPs. Some cumulative projects would require compliance with the SWRCB's NPDES general permit for industrial activities, as well as rules found in the CWA, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the RWQCB. With implementation of SWRCB, Colorado River RWQCB, and County policies, plans, and ordinances governing land use activities that may degrade or contribute to the violation of water quality standards, cumulatively considerable impacts on water quality would be minimized to a less than significant level.

Based on a review of the FEMA Flood Insurance Rate Map FIRM, the solar energy facility site is located within Zone X (unshaded). The FEMA Zone X (unshaded) designation is an area determined to be outside the 0.2 percent annual chance floodplain. The gen-tie transmission line runs through FEMA Zone A, a special flood hazard zone with 1 percent annual chance of flooding. Compliance with County Flood Zone Ordinances, guidelines, and regulations would be required to reduce potential impacts. Cumulative projects listed in Table 5-1 that are located in similar locations would also comply with County ordinances, guidelines, and regulations therefore, cumulatively considerable impacts on floodplains would be considered less than significant.

Based on these considerations, the project would not contribute to or result in a significant cumulatively considerable impact to hydrology or water quality, and cumulative impacts would be less than significant.

5.3.9 Land Use and Planning

The geographic scope for the analysis of cumulative land use and planning impacts is typically defined by government jurisdiction. The geographic scope for considering potential inconsistencies with the General Plan's policies from a cumulative perspective includes all lands within the County's jurisdiction and governed by its currently adopted General Plan. In contrast, the geographic scope for considering potential land use impacts or incompatibilities include the project site plus a one-mile buffer to ensure a consideration for reasonably anticipated potential direct and indirect effects.

As provided in Section 3.10, Land Use/Planning, the project would not involve any facilities that could otherwise divide an established community. Based on this circumstance, no cumulatively considerable impacts would occur. As discussed in Section 3.10, Land Use/Planning, the project would not conflict with the goals and objectives of the County of Imperial General Plan if all entitlements (General Plan amendment, Zone Change, and Conditional Use Permit) are approved by the County Board of Supervisors. In addition, a majority of the cumulative projects identified in Table 5-1 would not result in a conflict with applicable land use plans, policies, or regulations. In the event that incompatibilities or land use conflicts are identified for other projects listed in Table 5-1, the County would require mitigation to avoid or minimize potential land use impacts. Where General Plan Amendments and/or Zone Changes are required to extend the RE Overlay Zone for cumulative projects listed in Table 5-

1, that project would be required to demonstrate consistency with the overall goals and policies of the General Plan, and would be required to demonstrate meeting the criteria for extending the RE Overlay onto the project site. Based on these circumstances, no significant cumulatively considerable impact would occur, and cumulative impacts would be less than significant.

5.3.10 Noise and Vibration

When determining whether the overall noise (and vibration) impacts from related projects would be cumulatively significant and whether the project's incremental contribution to any significant cumulative impacts would be cumulatively considerable, it is important to note that noise and vibration are localized occurrences; as such, they decrease rapidly in magnitude as the distance from the source to the receptor increases. Therefore, only those related projects and identified in Table 5-1 that are in the vicinity of the project site and those that are considered influential in regards to noise and vibration would have the potential to be considered in a cumulative context with the project's incremental contribution.

As shown in Table 5-1, there are no cumulative projects within close proximity of the proposed project. The nearest project (Orni 18 Geothermal Plant) is located over 8 miles away. The proposed project's construction noise is not anticipated to be additive to the noise generated by the other cumulative projects. Similar to the proposed project, other cumulative projects would be required to comply with the County's construction noise standards. Construction activity is limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 9 a.m. to 5 p.m. on Saturdays. Adhering to the County's construction hours would reduce the noise and vibration impacts to below a level of significance. Thus, the incremental contribution of the project to a cumulative noise impact would not be cumulatively considerable.

Stationary-source and vehicular noise from the aforementioned related projects would be similar in nature and magnitude to those discussed for the project in Section 3.11, Noise and Vibration. For the proposed project, no noise impacts have been identified. Thus, the incremental contribution of the project to significant cumulative noise impacts would not be cumulatively considerable.

5.3.11 Public Services

The project would result in increased demand for public services (fire protection service and law enforcement services) (Section 3.12, Public Services). Future development in the Imperial Valley, including projects identified in Table 5-1, would also increase the demand for public services. In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of public services within their jurisdictional boundaries. In conjunction with the project's approval, the project applicant would also be conditioned to ensure sufficient funding is available for any fire protection or prevention needs and law enforcement services. Based on the type of projects proposed (e.g., solar energy generation), their relatively low demand for public services other than fire and police, it is reasonable to conclude that the project would not increase demands for education, or other public services. Service impacts associated with the project related to fire and police would be addressed through payment of impact fees as part of the project's Conditions of Approval to ensure that the service capabilities of these departments are maintained. Therefore, no cumulatively considerable impacts would occur.

5.3.12 Transportation

During the construction phase of the proposed VEGA 6 project, the maximum number of trips generated on a daily basis would be approximately 320 trips. Under construction year conditions with and without the proposed project, all roadway segments analyzed would operate at LOS B or better and all intersections would operate at a LOS C or better during both AM and PM peak hours. Implementation of the proposed project would not require any public road widening to accommodate vehicular trips associated with the proposed project (construction phase and operational phase), while maintaining adequate LOS. Additionally, future operations and maintenance would be conducted remotely, with minimal trips to the project site for panel washing and other solar maintenance.

Since the proposed project is located in a rural portion of the County there are no fixed routes for alternative transportation or non-motorized travel within the general area of the project site that would be impacted by project construction or operation. Although the proposed project would increase VMT during the construction phase, these increases are temporary in nature. Operation of proposed project would only require intermittent maintenance which would result in a nominal amount of vehicle trips generated.

The construction phasing of cumulative projects is not anticipated to overlap with the proposed projects. Furthermore, the cumulative projects are not anticipated to use the same construction haul route as the proposed project. Future operations and maintenance would be conducted remotely, with minimal trips to the project site for panel washing and other solar maintenance. Based on these findings, the project would not result in cumulatively considerable roadway or intersection impacts, and this impact would be less than significant.

5.3.13 Tribal Cultural Resources

As discussed in Section 3.14, Tribal Cultural Resources, no tribes have responded that indicate the potential for traditional cultural properties or sacred sites. Therefore, the proposed project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource, and impacts on tribal cultural resources would be less than significant. Future cumulative projects would also be required to comply with the requirements of AB 52 to determine the presence/absence of tribal cultural resources and engage in consultation to determine appropriate mitigation measures to minimize or avoid impacts on tribal cultural resources. Based on these considerations, the project would not contribute to or result in a significant cumulatively considerable impact tribal cultural resources.

5.3.14 Utilities and Service Systems

Future development in Imperial County would increase the demand for utility service in the region. In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of public utilities within their jurisdictional boundaries. The proposed project would not require or result in the relocation or construction of new or expanded wastewater facilities, storm water facilities, or water facilities. Additionally, the project would be comprised of mostly recyclable materials and would not generate significant volumes of solid waste that could otherwise contribute to significant decreases in landfill capacity. Based on these considerations, the project would result in less than significant impacts on existing utility providers and, therefore, would not result in cumulatively considerable impacts.

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6 Effects Found Not Significant

In accordance with Section 15128 of the CEQA Guidelines, an EIR must contain a statement briefly indicating the reasons that various potential significant effects of a project were determined not to be significant.

6.1 Agriculture and Forestry Resources

6.1.1 VEGA 6

Agriculture Resources

According to the farmland maps prepared by the California Department of Conservation, no portion of the solar energy facility site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2021). The proposed gen-tie line would border land designated as Farmland of Local Importance; however, the gen-tie line would be located entirely on undeveloped BLM desert land. Therefore, implementation of the proposed project would not convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to non-agriculture use.

The solar energy facility site is currently zoned Open Space/Preservation (S-2). According to the 2016/2017 Imperial County Williamson Act Map produced by the California Department of Conservation's Division of Land Resource Protection (DOC 2016), the project site is not located on Williamson Act contracted land. The proposed project would not conflict with existing zoning for agriculture use or a Williamson Act contract. Therefore, no impact would occur.

Forestry Resources

No portion of the VEGA 6 project site or the immediate vicinity is zoned or designated as forest lands, timberlands, or for timberland production. As such, the proposed VEGA 6 project would not conflict with existing zoning or cause the need for a zone change specifically related to agriculture or forest land (as defined in Public Resources Code Section 12220(g), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). Therefore, implementation of the proposed VEGA 6 project would not impact forestry resources.

6.1.2 Ramon Substation Expansion

Agriculture Resources

According to the farmland maps prepared by the California Department of Conservation, no portion of the Ramon Substation expansion area is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2020). The expansion area is designated as Other Land. Implementation of the proposed Ramon Substation expansion would not convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to non-agriculture use. Therefore, no impact would occur.

The Ramon Substation expansion area is zoned General Residential Zone (R-3). The Ramon expansion area is not within an agricultural preserve, nor is it subject to a Williamson Act contract.

Under existing conditions, the expansion area is vacant and undeveloped. The proposed Ramon Substation expansion would not conflict with existing zoning for agriculture use or a Williamson Act contract. Therefore, no impact would occur.

Forestry Resources

No portion of the Ramon Substation expansion area or the immediate vicinity is zoned or designated as forest lands, timberlands, or for timberland production. As such, the proposed expansion would not conflict with existing zoning or cause the need for a zone change specifically related to agriculture or forest land (as defined in Public Resources Code Section 12220(g), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). Therefore, implementation of the proposed Ramon Substation expansion would not impact forestry resources.

6.2 Energy

6.2.1 VEGA 6

Information for this section is summarized from the *Energy Consumption Assessment for the VEGA SES 6 Solar and Battery Storage Project* prepared for the project by ECORP Consulting, Inc. This report is included in Appendix L of this EIR.

The proposed VEGA 6 project would impact energy resources during project construction and operation. The analysis focuses on the four sources of energy that are most relevant to the project: the equipment fuel necessary for construction, the electricity and natural gas necessary during operations, and the automotive fuel necessary for ongoing maintenance activities during operations.

The following discussion calculates the potential energy consumption associated with construction and operation of the proposed VEGA 6 project and analyzes if the energy utilized would be wasteful, inefficient, or unnecessary consumption of energy resources.

Construction

Fuel necessary for project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the project site. The fuel expenditure necessary to construct the solar facility and infrastructure would be temporary, lasting only as long as project construction. As indicated in Table 6-1, the VEGA 6 project's gasoline fuel consumption during the one-time construction period is estimated to be 43,251 gallons during the first year of construction and 34,581 gallons during the second year of construction. This would increase the annual countywide gasoline fuel use associated with offroad equipment in the County by 0.020 percent and 0.016 percent, respectively. As such, project construction would have a nominal effect on local and regional energy supplies. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. For these reasons, it is expected that construction fuel consumption associated with the VEGA 6 project would not be any more inefficient, wasteful, or

unnecessary than other similar development projects of this nature. The VEGA 6 project’s energy impacts during construction would be less than significant.

Table 6-1. VEGA 6 Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Facility Electrical and Natural Gas Consumption		
Electricity Consumption	3,470,860 kilowatt-hours	0.41 percent
Natural Gas	45 therms	0.0001 percent
Automotive Fuel Consumption		
Year One of Construction	43,251 gallons	0.020 percent
Year Two of Construction	34,581 gallons	0.016 percent
Project Operations	2,785 gallons	0.001 percent

Source: Appendix L of this EIR

Operations

Once construction is completed the VEGA 6 project would be remotely controlled. No employees would be based at the VEGA 6 project site. The only operational emissions associated with the VEGA 6 project would be associated with motor vehicle use for routine maintenance work, water import, and site security as well as panel upkeep and cleaning. Six vehicle trips per day for routine maintenance work, site security, and trucking in water was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As indicated in Table 6-1, this would estimate to a consumption of approximately 2,785 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.001 percent.

As shown in Table 6-1, the annual electricity consumption due to operations would be 3,470,860 kilowatt hours, resulting in a negligible increase (0.41 percent) in the typical annual electricity consumption attributable to all non-residential uses in Imperial County. Table 6-1 shows that the annual natural gas consumption due to operations would be 45 therms, resulting an insignificant increase (0.0001 percent) in the typical annual natural gas consumption of nonresidential uses in Imperial County. The VEGA 6 project’s energy impacts during operations would be less than significant.

Compliance with State and Local Plans for Renewable Energy or Energy Efficiency

The purpose of the proposed VEGA 6 project is the construction of a renewable energy and storage facility in Imperial County. Once in operation, it will decrease the need for energy from fossil fuel-based power plants in the State. The result would be a net increase in electricity resources available to the regional grid, generated from a renewable source. The proposed VEGA 6 project would help California meet its RPS of 60 percent of retail electricity sales from renewable sources by the end of 2030 and 100 percent by 2045. Additionally, the VEGA 6 project would also be consistent with the County’s General Plan Conservation and Open Space Element, Objective 9.2 which encourages renewable energy developments. Therefore, the VEGA 6 project would directly support state and local plans for renewable energy development. The proposed VEGA 6 project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, no impact would occur.

6.2.2 Ramon Substation Expansion

Construction activities associated with the proposed Ramon Substation expansion would require the consumption of fossil fuel resources, for example diesel fuel and gasoline to power the off-road construction equipment and construction vehicles. Additionally, construction would require the manufacture and delivery of new equipment and materials, which would require energy use. The energy used by the proposed Ramon Substation expansion during construction would not be wasteful, inefficient, or unnecessary in light of the new facilities that would increase capacity and system reliability.

Grading activities would be required to adhere to local, regional, and state standards as well as best management practices. Construction of any structures would be subject to the California Building Code/Title 24, which includes energy efficiency and green building standards that address energy consumption.

Operations, including inspection, patrol, and maintenance would also require use of fossil fuel resources. However, no new employees would be required, and maintenance would be incorporated to IID's existing maintenance programs. The operation and maintenance activities would not change from IID's existing activities.

The proposed expansion would allow IID to increase capacity and the efficiency of the system's ability to deliver electricity to California's end users. Therefore, the proposed expansion would not conflict with any state or local plan for prioritizing renewable energy or energy efficiency.

6.3 Mineral Resources

6.3.1 VEGA 6

The VEGA 6 project site is not used for mineral resource production and the applicant is not proposing any form of mineral extraction. According to Figure 8: Imperial County Existing Mineral Resources of the Conservation and Open Space Element of the General Plan (County of Imperial 2016), no known mineral resources occur within the VEGA 6 project site nor does the project site contain mapped mineral resources. Therefore, the proposed VEGA 6 project would not result in the loss of availability of any known mineral resources that would be of value to the region and the residents of California nor would the proposed VEGA 6 project result in the loss of availability of a locally important mineral resource.

Based on a review of the California Department Division of Oil, Gas, and Geothermal Resources Well Finder, there are no geothermal wells located within the VEGA 6 project site (California Department of Oil, Gas, and Geothermal Resources 2022). However, there are several geothermal wells located north, northeast, and east of the project site that are plugged and abandoned (California Department of Oil, Gas, and Geothermal Resources 2022). The proposed VEGA 6 project would be designed to avoid the geothermal wells and would result in no impacts.

6.3.2 Ramon Substation Expansion

The Ramon Substation expansion area is located in a region identified as Mineral Resource Zone-3 (MRZ-3) as shown in Figure OS-6 of the Riverside County's General Plan (County of Riverside 2015). Areas identified as MRZ-3 are areas where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined. The proposed Ramon Substation expansion is not located within an area known to be underlain by regionally or

locally important mineral resources or within an area that has the potential to be underlain by regionally or locally important mineral resources, as disclosed by the Riverside County General Plan. Accordingly, implementation of the proposed Ramon Substation expansion would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California.

Based on a review of the California Department Division of Oil, Gas, and Geothermal Resources Well Finder, there are no geothermal wells located within the Ramon Substation expansion area (California Department of Oil, Gas, and Geothermal Resources 2023). Accordingly, impacts to the environmental issue of Mineral Resources would not occur.

6.4 Population and Housing

6.4.1 VEGA 6

Development of housing is not proposed as part of the VEGA 6 project. The unemployment rate in Imperial County as of September 2023 was 21.1 percent (State of California Employment Development Department 2023a). The applicant expects to utilize construction workers from the local and regional area, a workforce similar to that involved in the development of other utility-scale solar facilities. Based on the unemployment rate in Imperial County (21.1 percent) (State of California Employment Development Department 2023a), and the availability of the local workforce, construction of the proposed VEGA 6 project would not have a growth-inducing effect.

The proposed VEGA 6 project would be operated on an unstaffed basis and be monitored remotely, with periodic on-site personnel visitations for security, maintenance and system monitoring. Therefore, no full-time site personnel would be required on-site during operations and approximately two to three employees would only be onsite up to two times per year to wash the solar panels. As the project's PV arrays produce electricity passively, maintenance requirements are anticipated to be very minimal. Therefore, the proposed VEGA 6 project would not result in a substantial growth in the area, as the number of employees required to operate and maintain the facility is minimal.

No housing exists within the VEGA 6 project site and no people reside within the project site. Therefore, the proposed VEGA 6 project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. The proposed VEGA 6 project would result in no impact to population and housing.

6.4.2 Ramon Substation Expansion

Development of housing is not proposed as part of the proposed Ramon Substation expansion. The unemployment rate in the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (Riverside and San Bernardino Counties) as of September 2023 was 5.0 percent (State of California Employment Development Department 2023b). IID expects to utilize construction workers from the local and regional area, a workforce similar to that involved in the development of other utility-scale facilities. Based on the unemployment rate in Riverside County (5.0 percent) (State of California Employment Development Department 2023b), and the availability of the local workforce, construction of the proposed Ramon Substation expansion would not have a growth-inducing effect.

The proposed Ramon Substation expansion would not require any long-term employees during operations. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the

proposed expansion area. Therefore, the proposed expansion would not result in a substantial growth in the area.

No housing exists within the Ramon Substation expansion area and no people reside within the expansion area. Therefore, the proposed expansion would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. The proposed Ramon Substation expansion would result in no impact to population and housing.

6.5 Recreation

6.5.1 VEGA 6

The VEGA 6 project site is not used for formal recreational purposes. Also, the proposed VEGA 6 project would not generate new employment on a long-term basis. As such, the VEGA 6 project would not significantly increase the use or accelerate the deterioration of regional parks or other recreational facilities. The temporary increase of population during construction that might be caused by an influx of workers would be minimal and not cause a detectable increase in the use of parks. Additionally, the proposed VEGA 6 project does not include or require the expansion of recreational facilities. Therefore, no impact is identified for recreation.

6.5.2 Ramon Substation Expansion

The Ramon Substation expansion area is not used for formal recreational purposes. Also, as described above, the proposed expansion would not generate new employment on a long-term basis. As such, the proposed expansion would not significantly increase the use or accelerate the deterioration of regional parks or other recreational facilities. The temporary increase of population during construction that might be caused by an influx of workers would be minimal and not cause a detectable increase in the use of parks. Additionally, the proposed Ramon Substation expansion does not include or require the expansion of recreational facilities. Therefore, no impact is identified for recreation.

6.6 Public Services

6.6.1 VEGA 6

Schools

The proposed VEGA 6 project does not include the development of residential land uses that would result in an increase in population or student generation. Construction of the proposed VEGA 6 project would not result in an increase in student population within the Imperial County's School District since it is anticipated that construction workers would commute in during construction operations. The proposed VEGA 6 project would have no impact on Imperial County schools.

Parks and Other Public Facilities

No full-time employees are required to operate the VEGA 6 project. The project facility will be monitored remotely. It is anticipated that maintenance of the facility will require minimal site presence to perform periodic visual inspections and minor repairs. Therefore, substantial permanent increases in population that would adversely affect local parks, libraries, and other public facilities are not

expected. The proposed VEGA 6 project is not expected to have an impact on parks, libraries, and other public facilities.

6.6.2 Ramon Substation Expansion

Schools

The proposed Ramon Substation expansion does not include the development of residential land uses that would result in an increase in population or student generation. The proposed VEGA 6 project would have no impact on Riverside County schools.

Parks and Other Public Facilities

The proposed Ramon Substation expansion would not generate new employment on a long-term basis. There are already existing employees staffed at the existing Ramon Substation. These existing employees are anticipated to perform routine maintenance work and site security for the proposed expansion area. Therefore, substantial permanent increases in population that would adversely affect local parks, libraries, and other public facilities are not expected. The proposed Ramon Substation expansion is not expected to have an impact on parks, libraries, and other public facilities.

6.7 Utilities and Service Systems

6.7.1 VEGA 6

Wastewater Facilities

The VEGA 6 project would generate a minimal volume of wastewater during construction. During construction activities, wastewater would be contained within portable toilet facilities and disposed of at an approved site. No habitable structures are proposed on the VEGA 6 project site, therefore, there would be no wastewater generation from the proposed VEGA 6 project. The proposed VEGA 6 project would not require or result in the relocation or construction of new or expanded wastewater facilities.

Storm Water Facilities

The VEGA 6 project does not require expanded or new storm drainage facilities off-site (i.e., outside of the project footprint) because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events. Therefore, the VEGA 6 project would not require the construction of off-site storm water management facilities. Water from solar panel washing would continue to percolate through the ground, as the majority of the surfaces within the project site boundary would remain pervious. As such, the proposed VEGA 6 project would not require or result in the relocation or construction of new or expanded storm water facilities beyond those proposed as part of the VEGA 6 project and evaluated in the EIR.

Water Facilities

The proposed VEGA 6 project is not anticipated to result in a significant increase in water demand/use during operation; however, water will be needed for solar panel washing and dust suppression. During operation, water would be trucked to the VEGA 6 project site from a local water source. Therefore, the proposed VEGA 6 project would not require or result in the relocation or construction of new or expanded water facilities.

Power, Natural Gas, and Telecommunication Facilities

The proposed VEGA 6 project would involve construction of power facilities. However, these are components of the project as evaluated in the EIR. The proposed VEGA 6 project would not otherwise generate the demand for or require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities that would in turn, result in a significant impact to the environment.

Solid Waste Facilities

Solid waste generation would be minor for the construction and operation of the VEGA 6 project. Solid waste would be disposed of using a locally-licensed waste hauling service, most likely Allied Waste. Trash would likely be hauled to the Imperial Landfill (13-AA-0019) located approximately 14 miles southeast of the proposed VEGA 6 project in Imperial. The Imperial Landfill has approximately 12,384,000 cubic yards of remaining capacity and is estimated to remain in operation through 2040 (CalRecycle 2022). Therefore, Imperial Landfill has adequate capacity to receive the minor amount of solid waste generated by construction and operation of the proposed VEGA 6 project.

Additionally, the VEGA 6 project would comply with applicable State and local requirements for waste reduction and recycling; including the 1989 California Integrated Waste Management Act and the 1991 California Solid Waste Reuse and Recycling Access Act of 1991. Further, conditions of the CUP would contain provisions for recycling and diversion of Imperial County construction waste policies.

When the proposed VEGA 6 project reaches the end of its operational life, the components would be decommissioned and deconstructed. When the project concludes operations, much of the wire, steel, and modules of which the system is comprised would be recycled to the extent feasible. The VEGA 6 project components would be deconstructed and recycled or disposed of safely, and the site could be converted to other uses in accordance with applicable land use regulations in effect at the time of closure. Commercially reasonable efforts would be used to recycle or reuse materials from the decommissioning. All other materials would be disposed of at a licensed facility. A less than significant impact is identified for this issue.

6.7.2 Ramon Substation Expansion

Wastewater Facilities

The proposed Ramon Substation expansion would generate a minimal volume of wastewater during construction. During construction activities, wastewater would be contained within portable toilet facilities and disposed of at an approved site. No habitable structures are proposed, therefore, there would be no wastewater generation from the proposed expansion. The proposed Ramon Substation expansion would not require or result in the relocation or construction of new or expanded wastewater facilities.

Storm Water Facilities

The proposed Ramon Substation expansion does not require expanded or new storm drainage facilities off-site (i.e., outside of the project footprint) because the proposed facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events. Therefore, the proposed Ramon Substation expansion would not require the construction of off-site storm water management facilities. As such, the proposed Ramon Substation expansion would not require or result in the relocation or construction of new or expanded storm water facilities.

Water Facilities

The proposed Ramon Substation expansion is not anticipated to result in a significant increase in water demand/use during operation; however, water will be needed for dust suppression. During operation, water would be trucked to the expansion area from a local water source. Therefore, the proposed Ramon Substation expansion would not require or result in the relocation or construction of new or expanded water facilities.

Power, Natural Gas, and Telecommunication Facilities

The proposed Ramon Substation expansion would involve construction and expansion of existing power facilities. However, these are components of the project as evaluated in the EIR. The proposed expansion would not otherwise generate the demand for or require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities that would in turn, result in a significant impact to the environment.

Solid Waste Facilities

The Ramon Substation expansion area is within the jurisdiction of the Riverside County Waste Management Department, which operates six landfills and contracts with an additional private landfill, and administers several transfer station leases. The nearest landfill, and the one most likely to accept waste from the expansion area, is the Oasis Landfill. According to CalRecycle, the Oasis Landfill has 433,779 cubic yards of remaining capacity and is estimated to remain in operation through 2055 (CalRecycle 2023).

Construction of the Ramon Substation expansion would result in the generation of construction-related waste. Projects that have the potential to generate construction and demolition (C&D) waste are required to comply with the County of Riverside's C&D Waste Diversion Program. This program is designed to comply with AB 939 and the CALGreen Building Code, Materials Conservation and Resource Efficiency section. Compliance with the County of Riverside's C&D Waste Diversion Program would ensure that a minimum of 65 percent of the project's C&D waste would be recycled and diverted from landfills. It is anticipated that Oasis Landfill would have sufficient daily capacity to accept the construction waste generated by the proposed Ramon Substation expansion. The proposed expansion is not anticipated to cause or contribute to the need for new or expanded solid waste facilities during construction. The proposed expansion is not anticipated to generate solid waste during operations.

Based on the analysis above, the Oasis Landfill would have adequate capacity to handle solid waste generated by the proposed Ramon Substation expansion. Accordingly, impacts would be less than significant.

6.8 Wildfire

6.8.1 VEGA 6

According to the California Department of Forestry and Fire Protection, the VEGA 6 project site is not located within or near a state responsibility area or lands classified as very high severity zones (California Department of Forestry and Fire Protection 2007). Therefore, the proposed VEGA 6 project would not substantially impair an adopted emergency response plan or emergency evacuation plan; expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a

wildfire; exacerbate fire risk; or, expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impact is identified for wildfire.

6.8.2 Ramon Substation Expansion

According to the California Department of Forestry and Fire Protection, the Ramon Substation expansion area is not located within or near a state responsibility area or lands classified as very high severity zones (California Department of Forestry and Fire Protection 2007). According to the WCVAP Wildfire Susceptibility Map, the expansion area is not located within an area susceptible to wildfire (County of Riverside 2021). Therefore, the proposed Ramon Substation expansion would not substantially impair an adopted emergency response plan or emergency evacuation plan; expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; exacerbate fire risk; or, expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impact is identified for wildfire.

7 Alternatives

7.1 Introduction

The identification and analysis of alternatives is a fundamental concept under CEQA. This is evident in that the role of alternatives in an EIR is set forth clearly and forthrightly within the CEQA statutes. Specifically, CEQA §21002.1(a) states:

“The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.”

The CEQA Guidelines require an EIR to “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines §15126.6(a)). The CEQA Guidelines direct that selection of alternatives focus on those alternatives capable of eliminating any significant environmental effects of the project or of reducing them to a less-than significant level, even if these alternatives would impede to some degree the attainment of project objectives, or would be more costly. In cases where a project is not expected to result in significant impacts after implementation of recommended mitigation, review of project alternatives is still appropriate.

The range of alternatives required within an EIR is governed by the “rule of reason” which requires an EIR to include only those alternatives necessary to permit a reasoned choice. The discussion of alternatives need not be exhaustive. Furthermore, an EIR need not consider an alternative whose implementation is remote and speculative or whose effects cannot be reasonably ascertained.

Alternatives that were considered but were rejected as infeasible during the scoping process should be identified along with a reasonably detailed discussion of the reasons and facts supporting the conclusion that such alternatives were infeasible.

Based on the alternatives analysis, an environmentally superior alternative is designated among the alternatives. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives (CEQA Guidelines §15126.6(e)(2)).

7.2 Criteria for Alternatives Analysis

As stated above, pursuant to CEQA, one of the criteria for defining project alternatives is the potential to attain the project objectives. Established objectives of the project Applicant for the proposed project include:

- Construct and operate a solar energy facility capable of producing up to 80 MW alternating current (AC) of electricity to assist the State of California in achieving its 60 percent renewable portfolio standard by 2030.
- Provide a 160 MW energy (battery storage) system, that would accommodate and store the power generated by the project so that the facility can continue to provide renewable energy during non-daylight hours.

- Help California meet its statutory and regulatory goal of increasing renewable power generation, including greenhouse gas reduction goals of Senate Bill 32.
- Interconnect directly to IID's existing electrical transmission system.
- Minimize and mitigate any potential impact to sensitive environmental resources within the project area.

7.3 Alternatives Considered but Rejected

7.3.1 Alternative Site

Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by constructing the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) states that among the factors that may be taken into account when addressing the feasibility of alternative locations are whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).

The proponent does not have control of an alternate site; if control were viable, the proponent would have to re-initiate the application process as a new project. Similar to the proposed project site, an alternate site would require environmental review once the proponent has prepared sufficient project description information. At present, the proponent does not have control of an alternate site. This alternative would be the most complex, costly, and time-consuming alternative to implement. It is unknown if the environmental impacts associated with this Alternative would be less than the proposed project because it would be speculative to evaluate an unsecured alternate site. This is primarily due to the fact that the proponent does not have control of an alternate site. Therefore, an alternative site was eliminated from further consideration in this EIR.

7.4 Alternative 1: No Project/No Development Alternative

The CEQA Guidelines require analysis of the No Project Alternative (PRC Section 15126). According to Section 15126.6(e)(1), "the specific alternative of 'no project' shall also be evaluated along with its impact." Also, pursuant to Section 15126.6(e)(2); "The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, ... at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

The No Project/No Development Alternative assumes that the project, as proposed, would not be implemented and the project site would not be further developed with a solar energy project. The No Project/No Development Alternative would fail to meet any of the project objectives.

7.4.1 Environmental Impact of Alternative 1: No Project/No Development Alternative

Aesthetics

Under the No Project/No Development Alternative, the project site would not be developed and would continue to be vacant land. The No Project/No Development Alternative would not modify the existing project site or add construction to the project site therefore, there would be no change to the existing condition of the site. Under this alternative, there would be no potential to create a new source of light or glare associated with the PV arrays. A less than significant aesthetic impact (including potential light and glare impact) has been identified associated with the project. However, because there would be no change to the existing condition of the project site under this alternative, there would be no potential impact associated with a change in visual character of the site and the potential aesthetic impact would be less as compared to the project as the existing visual conditions would not change.

Air Quality

Under the No Project/No Development Alternative, there would be no air emissions associated with project construction or operation, and no project- or cumulative-level air quality impact would occur. Therefore, no significant impacts to air quality or violation of air quality standards would occur under this alternative. Moreover, this alternative would be consistent with existing air quality attainment plans and would not result in the creation of objectionable odors.

As discussed in Section 3.3, Air Quality, the proposed project would not exceed the ICAPCD's significance thresholds for emissions of ROG, CO, NO_x, and PM_{2.5} during both the construction and operational phases of the project. However, the project would exceed the ICAPCD threshold for PM₁₀. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. The project must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. However, the project's daily construction emissions would exceed the ICAPCD threshold for PM₁₀, even with implementation of ICAPCD Regulation VIII (Mitigation Measure AQ-1). A predominate source of the project's PM₁₀ emissions is workers commuting to and from the project site on unpaved roads. Commuter vehicles traveling over the exposed soils of unpaved roads generates substantial amounts of fugitive PM₁₀ emissions. The majority of roadways leading to the project site are paved; however, 1.8 miles of unpaved roadway would be used by commuting workers and vendors. Mitigation Measure AQ-2 is proposed to reduce PM₁₀ emissions to levels below the significance threshold. This alternative would result in less air quality emissions compared to the proposed project, the majority of which would occur during construction. The No Project/No Development Alternative would not reduce the long-term need for renewable electricity generation. As a consequence, while the No Project/No Development Alternative would not result in new impacts to air quality as a result of construction, it would likely not realize the overall benefits to regional air quality when compared to the operation of the proposed project.

Biological Resources

Under the No Project/No Development Alternative, existing biological resource conditions within the project site would largely remain unchanged and no impact would be identified. Unlike the proposed project which requires mitigation for biological resources including, burrowing owl, bird species, Palm Springs pocket mouse, and riparian habitat/wetlands, this alternative would not result in construction

of a solar facility that could otherwise result in significant impacts to these biological resources. Compared to the proposed project, this alternative would avoid impacts to biological resources.

Cultural Resources

The proposed project would involve ground-disturbing activities that have the potential to disturb previously undocumented cultural resources that could qualify as historical resources or unique archaeological resources pursuant to CEQA. Under the No Project/No Development Alternative, the project site would not be developed and no construction-related ground disturbance would occur. Therefore, compared to the proposed project, this alternative would avoid impacts to cultural resources.

Geology and Soils

Because there would be no development at the project site under the No Project/No Development Alternative, no grading or construction of new facilities would occur. Therefore, there would be no impact to project-related facilities as a result of local seismic hazards (strong ground shaking), expansive soils, corrosive soils, soil erosion, and paleontological resources. In contrast, the proposed project would require the incorporation of mitigation measures related to strong ground shaking, expansive soils, corrosive soils, soil erosion, and paleontological resources to minimize impacts to a level less than significant. Compared to the proposed project, this alternative would avoid significant impacts related to local geology and soil conditions and paleontological resources.

Greenhouse Gas Emissions

Under the No Project/No Development Alternative, there would be no GHG emissions resulting from project construction or operation or corresponding impact to global climate change. The No Project/No Development Alternative would not help California meet its statutory and regulatory goal of increasing renewable power generation, including GHG reduction goals of SB 32. While this alternative would not further implement policies for GHG reductions, this alternative would also not directly conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This alternative would not create any new GHG emissions during construction but would not lead to a long-term beneficial impact to global climate change by providing renewable clean energy. For the proposed project, a less than significant impact was identified for construction-related GHG emissions, and in the long-term, the project would result in an overall beneficial impact to global climate change as the result of creation of clean renewable energy, that does not generate GHG emissions. Compared to the proposed project, while the No Project/No Development Alternative would not result in new GHG emissions during construction, it would be less beneficial to global climate change as compared to the proposed project. Further, the construction emissions associated with the project would be off-set by the beneficial renewable energy provided by the project, negating any potential that the No Project/No Development alternative would reduce construction-related GHG emissions.

Hazards and Hazardous Materials

The No Project/No Development Alternative would not include any new construction. Therefore, no potential exposure to hazardous materials would occur. Therefore, no impact is identified for this alternative for hazards and hazardous materials. As with the proposed project, this alternative would not result in safety hazards associated with airport operations. Although a less than significant impact is identified for hazards and hazardous materials associated with the project, compared to



the proposed project, this alternative would have less of an impact related to hazards and hazardous materials as there would be no potential for the transport, use, removal or disposal of hazardous materials.

Hydrology/Water Quality

The No Project/No Development Alternative would not result in modifications to the existing drainage patterns or volume of storm water runoff as attributable to the proposed project, as the existing site conditions and on-site pervious surfaces would remain unchanged. In addition, no changes with regard to water quality would occur under this alternative. The proposed project has the potential to affect surface water quality with polluted runoff flowing from the project to the IID Imperial Valley Drains. To reduce impacts to a less than significant level, the applicant would file an NOI with the SWRCB to comply with the General NPDES Construction Permit and prepare a SWPPP, which addresses the measures that would be included during construction or the project to minimize and control construction and post-construction runoff to the “maximum extent practicable.” Compared to the proposed project, from a drainage perspective, this alternative would avoid changes to existing hydrology and water quality. This alternative would have less of an impact associated with hydrology/water quality as compared to the proposed project.

Land Use Planning

Under the No Project/No Development Alternative, the project site would not be developed and continue to be undeveloped, partially disturbed land. Current land uses would remain the same. No existing community would be divided, and no inconsistencies with land use planning policies would occur. Because no significant Land Use and Planning impact has been identified associated with the proposed project, this alternative would not avoid or reduce a significant impact related to this issue and therefore, it is considered similar to the proposed project.

Noise

This alternative would not require construction or operation of the project facilities; therefore, this alternative would not increase ambient noise levels within the vicinity of the project site. For this reason, no significant noise impacts would occur. As discussed in Section 3.11, Noise and Vibration, the proposed project would not result in significant noise impacts to sensitive receptors during construction and operation. Compared to the proposed project, this alternative would not generate noise and would have less of an impact associated with noise.

Public Services

Under the No Project/No Development Alternative, the project site would remain vacant and unchanged and would not result in a demand for public services. The proposed project would result in a temporary increase in demand for law enforcement service and would result in a minor increase in demand for fire protection services over existing levels. Therefore, the project applicant would be required to pay the fire protection services’ impact fees and the project applicant will be required to participate in the Imperial County Public Benefit Program to pay for all costs, benefits, and fees associated with the project to offset potential impacts. Compared to the proposed project, this alternative would have less impacts related to public services.

Transportation

There would be no new development under the No Project/No Development Alternative. Therefore, this alternative would not generate vehicular trips during construction or operation. For these reasons, no impact would occur and this alternative would not impact any applicable plan, ordinance, or policy addressing the performance of the circulation system, substantially increase hazards because of a design feature, or result in inadequate emergency access. Although the proposed project would result in less than significant transportation impacts, this alternative would avoid an increase in vehicle trips on local roadways, and any safety related hazards that could occur in conjunction with the increase vehicle trips and truck traffic, primarily associated with the construction phase of the project.

Tribal Cultural Resources

The proposed project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource. Impacts to tribal cultural resources under the No Project/No Development Alternative are similar to the proposed project.

Utilities and Service Systems

The No Project/No Development Alternative would not require the expansion or extension of existing utilities, since there would be no new project facilities that would require utility service. No solid waste would be generated under this alternative. The proposed project would not result in any significant impacts to existing utilities or solid waste facilities. Compared to the proposed project, this alternative would have less of an impact related to utilities and solid waste facilities.

Conclusion

Implementation of the No Project/No Development Alternative would generally result in reduced impacts for a majority of the environmental issues areas considered in Chapter 3, Environmental Analysis when compared to the proposed project. A majority of these reductions are realized in terms of significant impacts that are identified as a result of project construction. However, this alternative would not realize the benefits of reduced GHG emissions associated with energy use, which are desirable benefits that are directly attributable to the proposed project.

Comparison of the No Project/No Development Alternative to Project Objectives

The No Project/No Development Alternative would not meet any of the objectives of the project. Additionally, the No Project/No Development Alternative would not help California meet its statutory and regulatory goal of increasing renewable power generation, including GHG reduction goals of SB 32.

7.5 Alternative 2: Reduced Project Site

The purpose of this alternative is to reduce the size of the solar facility site to minimize impacts on riparian habitat and jurisdictional resources. There is riparian habitat associated with the detention basins within the solar facility site. Additional riparian habitat is associated with the agricultural drains and roadside ditches. Ephemeral drainages are located throughout the northern portion of the solar facility site.

As shown in Figure 7-1, this alternative would avoid development on portions of the solar facility site where riparian habitat and jurisdictional resources occur. The solar facility site would be reduced by approximately 109 acres from a total of 320 acres to 211 acres. Under this alternative, the gen-tie line alignment would be extended approximately 0.54 miles to the south.

7.5.1 Environmental Impact of Alternative 2: Reduced Project Site

Aesthetics

Under Alternative 2, the overall size of the solar energy facility would be reduced. No significant visual aesthetic impact has been identified as the proposed project's facilities would not impact scenic resources, result in the substantial degradation of the existing visual character of the project sites, or add a substantial amount of light and glare. As such, this alternative would not avoid or reduce any significant impacts identified for the proposed project and the aesthetic impact would be similar to the proposed project.

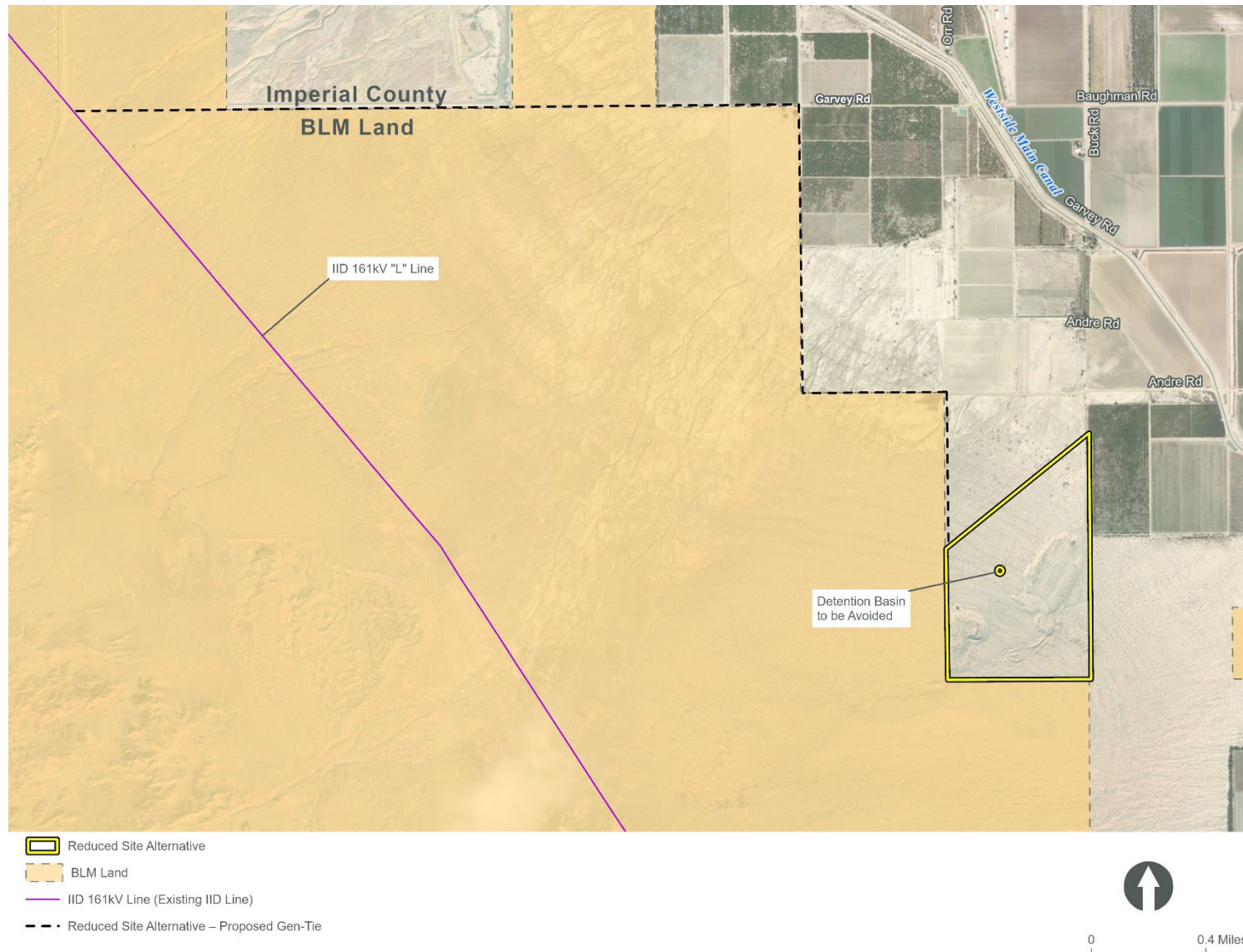
Air Quality

Under Alternative 2, air emissions during construction would be less than the proposed project because of the reduced site development. A less than significant impact with mitigation incorporated has been identified for the proposed project during construction. As described in Section 3.3 Air Quality, the proposed project's daily construction emissions would exceed the ICAPCD threshold for PM₁₀, even with implementation of ICAPCD Regulation VIII (Mitigation Measure AQ-1). A predominate source of the project's PM₁₀ emissions is workers commuting to and from the project site on unpaved roads. Commuter vehicles traveling over the exposed soils of unpaved roads generates substantial amounts of fugitive PM₁₀ emissions. The majority of roadways leading to the project site are paved; however, 1.8 miles of unpaved roadway would be used by commuting workers and vendors. Mitigation Measure AQ-2 is proposed to reduce PM₁₀ emissions to levels below the significance threshold. Mitigation Measure AQ-2 would require the project contractor to use soil stabilizers on the 1.8 miles of unpaved roadway used for construction worker access to the project site. Similar to the proposed project, this alternative would be required to comply with the requirements of ICAPCD Regulation VIII (Mitigation Measure AQ-1) for the control of fugitive dust and Mitigation Measure AQ-2 to minimize fugitive PM₁₀ emissions.

Similar to the proposed project, this alternative would be consistent with existing AQMPs and would not result in the creation of objectionable odors. This alternative would provide less MW generation compared to the proposed project, thereby reducing its ability to provide a long-term source of renewable energy. Compared to the proposed project, while this alternative would result in less air quality impacts, it would likely provide fewer desirable benefits to overall regional air quality as attributable to the proposed project.

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Figure 7-1. Alternative 2 – Reduced Project Site



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Biological Resources

Under Alternative 2, the overall size of the solar energy facility would be reduced by 109 acres. As described in Section 3.4 Biological Resources, there is riparian habitat associated with the detention basins within the solar facility site. Additional riparian habitat is associated with the agricultural drains and roadside ditches. Ephemeral drainages are located throughout the northern portion of the solar facility site. Under Alternative 2, impacts on biological resources would be reduced by reducing the size of the project site to avoid impacts on riparian habitat and jurisdictional resources located within the solar energy facility site. Although the overall size of the solar energy facility would be reduced, there is still potential for impacts on special-status species on the solar energy facility site. Also, the proposed project's potential impacts on biological resources as a result of the construction of the proposed gen-tie line and Ramon Substation would still occur. Compared to the proposed project, this alternative would result in a reduction in impacts on biological resources but would still require mitigation to reduce impacts to a level less than significant.

Cultural Resources

Although the overall size of the solar energy facilities would be reduced by 109 acres, this alternative would still require ground-disturbing activities, which has the potential to disturb undocumented cultural resources that could qualify as historical resources or unique archaeological resources pursuant to CEQA, and human remains. This alternative could avoid direct impacts to potentially significant cultural resources sites potentially located within the reduced project site footprint (yet to be evaluated for eligibility for the CRHR). Compared to the proposed project, this alternative would result in a reduction in impacts on cultural resources because of the reduced site development but would still require mitigation related to monitoring for inadvertent discovery.

Geology and Soils

Under Alternative 2, while the overall project footprint would be reduced, grading and construction of new facilities, such as the solar facility, battery energy storage, and gen-tie, would still occur. Similar to the proposed project, this alternative would also be subject to potential impacts related to strong ground shaking, expansive soils, corrosive soils, soil erosion, and paleontological resources, and incorporation of mitigation measures would be required to minimize these impacts to a less than significant level. This alternative would result in similar geology and soil and paleontological resources impacts as the proposed project.

Greenhouse Gas Emissions

Under Alternative 2, the overall project footprint would be reduced by approximately 109 acres, thereby contributing to reductions in GHG emissions during project construction. However, as a consequence of the reduced size of the project, this alternative would result in a reduced power production capacity as compared to the proposed project; hence, the overall benefits of the project to global climate change through the creation of renewable energy would also be reduced. This alternative would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Similar to the proposed project, this alternative would not exceed MDAQMD's threshold of 100,000 MTCO_{2e}. This alternative would contribute to similar and desirable reductions in GHG emissions and associated contribution to global climate change through the production of renewable energy, although to a lesser degree. Because no significant GHG impact

has been identified associated with the proposed project, this alternative would not avoid or reduce a significant impact related to this issue and, therefore, it is considered similar to the proposed project.

Hazards and Hazardous Materials

Similar to the proposed project, construction of this alternative would involve the limited use of hazardous materials, such as fuels and greases to fuel and service construction equipment. No impact associated with potential safety hazards to the public residing or working within proximity to a public airport would occur. Implementation of this alternative would result in a similar hazards and hazardous materials impact as the proposed project. This alternative would not avoid or lessen the impact to hazards and hazardous materials as no significant impact associated with the proposed project has been identified.

Hydrology/Water Quality

Alternative 2 would result in modifications to the existing drainage patterns and the volume of storm water runoff, as this alternative would introduce impervious area on-site, although to a lesser degree than the proposed project. Because the overall project footprint would be reduced, this alternative would realize a minor reduction in the corresponding impacts on hydrology and on-site drainage; however, the same mitigation measures would be applicable to this alternative. Compared to the proposed project, this alternative would result in less of an impact on hydrology/water quality.

Land Use Planning

Implementation of this alternative would not avoid or reduce a land use and planning impact, as no significant impact associated with the project has been identified. As with the proposed project, this alternative would be consistent with the County Land Use Ordinance, Division 17, RE Overlay Zone, which authorizes the development and operation of RE projects with an approved CUP. Implementation of this alternative would be similar to the proposed project with respect to land use and planning.

Noise

As with the proposed project, Alternative 2 would not result in significant noise impacts associated with construction activities. As with the proposed project, operational impacts associated with this alternative would not expose persons or generate noise levels in excess of applicable noise standards, exposure persons to, or generate excessive groundborne vibration, or expose persons to excessive aircraft noise. Because no significant noise impact has been identified associated with the proposed project, this alternative would not avoid or reduce a significant impact related to this issue and therefore, it is considered similar to the proposed project.

Public Services

While the overall project footprint would be reduced under this alternative, the impacts of this alternative to public services and associated service ratios would be similar. Similar to the proposed project, this alternative would be conditioned to provide law enforcement and fire service development impact fees. This alternative would result in a similar impact related to public services.

Transportation

This alternative would result in a similar level of construction and operation-related vehicle and truck trips as compared to the proposed project. However, the increase in vehicular traffic was identified as a less than significant impact for the proposed project. In this context, Alternative 2 would not reduce or avoid an impact related to transportation and would result in less than significant impacts similar to the proposed project. As with the proposed project, Alternative 2 would not impact any applicable plan, ordinance, or policy addressing the performance of the circulation system, substantially increase hazards because of a design feature, result in inadequate emergency access, or conflict with public transit, bicycle, or pedestrian facilities. This alternative would result in a similar impact related to transportation as the proposed project.

Tribal Cultural Resources

Implementation of this alternative would not avoid or reduce a tribal cultural resources impact, as no significant impact associated with the project has been identified. Impacts to tribal cultural resources under this alternative are similar to the proposed project.

Utilities and Service Systems

Implementation of this alternative would result in an overall less demand for utilities, including water. However, this alternative would not avoid or reduce a significant impact associated with the project as a less than significant impact to utilities has been identified associated with the project. Implementation of this alternative would not achieve to the same degree the beneficial impacts of providing renewable energy. As compared to the proposed project, the overall demand for utilities would be less under this alternative.

Conclusion

Implementation of the Reduced Project Site Alternative would generally result in reduced impacts to air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems.

Comparison of the Reduced Project Site Alternative to Project Objectives

Alternative 2 would meet most of the basic objectives of the proposed project and should remain under consideration. However, this alternative would make it more difficult to achieve the overall objective of providing a total of 80 MW of renewable solar energy, as there would be less area available for the placement of PV structures.

7.6 Environmentally Superior Alternative

Table 7-1 provides a qualitative comparison of the impacts for each alternative compared to the proposed project. As noted on Table 7-1, the No Project/No Development Alternative would be considered the environmentally superior alternative, since it would eliminate all of the significant impacts identified for the project. However, CEQA Guidelines Section 15126.6(e)(2) states that “if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” As shown in Table 7-1, Alternative 2 would be the environmental superior alternative because it would reduce impacts for the following environmental issue areas as compared to the proposed project: air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems.



Table 7-1. Comparison of Alternative Impacts to Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Aesthetics and Visual Resources	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Air Quality	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Biological Resources	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Cultural Resources	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Geology and Soils	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Similar Impact

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
GHG Emissions	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Hazards and Hazardous Materials	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Hydrology/ Water Quality	Less than Significant with Mitigation	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact (Avoid)	<i>CEQA Significance:</i> Less than Significant with Mitigation <i>Comparison to Proposed Project:</i> Less Impact
Land Use/Planning	No Impact	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Similar Impact	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Similar Impact
Noise and Vibration	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Public Services	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact



Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Transportation	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Tribal Cultural Resources	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Similar Impact
Utilities/Service Systems	Less than Significant	<i>CEQA Significance:</i> No Impact <i>Comparison to Proposed Project:</i> Less Impact	<i>CEQA Significance:</i> Less than Significant <i>Comparison to Proposed Project:</i> Less Impact

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9 EIR Preparers and Persons and Organizations Contacted

9.1 EIR Preparers

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