Draft Environmental Impact Report

VEGA SES 4 Solar Energy Project

SCH No. 2021050018

Imperial County, California

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Prepared for

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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 4 Solar Energy Project and to propose mitigation measures, where required, to reduce significant impacts.

Project Overview

The VEGA SES 4 Solar Energy Project is located on approximately 450 acres of privately-owned land in the southernmost portion of Imperial County, California. The project site is between the U.S./Mexico international border and the All-American Canal, on the California side. The project site is proposed on two parcels (Assessor Parcel Numbers 059-300-015 and 059-300-017) that are contiguous with each other.

The proposed project consists of three primary components: 1) solar energy generation equipment and associated facilities including a substation and access roads (herein referred to as "solar energy facility"); 2) battery energy storage system (BESS); and 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the existing Imperial Irrigation District's (IID) 92-kV "P" line.

The proposed project involves the construction of a 100-megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy facility with an integrated 100 MW BESS (not to exceed 200 MW) on approximately 450 acres of land. The project proposes to utilize either thin film or crystalline solar PV technology modules mounted either on fixed frames or horizontal single-axis tracker systems. The project would include electronic/electrical equipment, an on-site substation, access road(s) and fencing. The electrical energy produced by the project would be conducted through the project's interconnection facilities to the proposed 92 kV generator intertie (gen-tie) line and delivered to the existing IID approved point of interconnection on the 92-kV "P" Line located immediately north of the project site and the All-American Canal.

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 project (Appendix A of this EIR), Imperial County (County) determined that environmental effects to 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.

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
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use Planning
- Noise and Vibration
- 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 project.

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 as well as issues to be resolved known to the Lead Agency, including issues raised by other agencies and the public. 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 impacts on IID drains, project site access for construction workers, construction vehicles and equipment, and operational requirements (e.g., periodic maintenance and emergency response access), and U.S./Mexico border patrol operations.

Detailed analyses of these topics are included within each corresponding section contained within this document.

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
Agricultural Resources			
Impact 3.3-3: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.	Significant	**AG-1** **Pest Management Plan.** Prior to the issuance of a grading permit or building permit (whichever occurs first), a Pest Management Plan shall be developed by the project applicant and approved by the County of Imperial Agricultural Commissioner. The project applicant shall maintain a Pest Management Plan until reclamation is complete. The plan shall provide the following: 1. Monitoring, preventative, and management strategies for weed and pest control during construction activities at any portion of the project (e.g., transmission line); 2. Control and management of weeds and pests in areas temporarily disturbed during construction where native seed will aid in site revegetation as follows: • Monitor for all pests including insects, vertebrates, weeds, and pathogens. Promptly control or eradicate pests when found, or when notified by the Agricultural Commissioner's office that a pest problem is present on the project site. The assistance of a licensed pest control advisor is recommended. All treatments must be performed by a qualified applicator or a licensed pest control business; • All treatments must be performed by a qualified applicator or a licensed pest control operator; • "Control" means to reduce the population of common pests below economically damaging levels, and includes attempts to exclude pests before infestation, and effective control methods after infestation. Effective control methods may include physical/mechanical removal, bio control, cultural control, or chemical treatments;	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Use of "permanent" soil sterilants to control weeds or other pests is prohibited because this would interfere with reclamation; • Notify the Agricultural Commissioner's office immediately regarding any suspected exotic/invasive pest species as defined by the California Department of Food Agriculture and the U.S. Department of Agriculture. Request a sample be taken by the Agricultural Commissioner's Office of a suspected invasive species. Eradication of exotic pests shall be done under the direction of the Agricultural Commissioner's Office and/or California Department of Food and Agriculture; • Obey all pesticide use laws, regulations, and permit conditions; • Allow access by Agricultural Commissioner staff for routine visual and trap pest surveys, compliance inspections, eradication of exotic pests, and other official duties; • Ensure all project employees that handle pest control issues are appropriately trained and certified, all required records are maintained and made available for inspection, and all required permits and other required legal documents are current; • Maintain records of pests found and treatments or pest management methods used. Records should include the date, location/block, project name (current and previous if changed), and methods used. For pesticides include the chemical(s) used, EPA Registration numbers, application rates, etc. A pesticide use report may be used for this; • Submit a report of monitoring, pest finds, and treatments, or other pest management methods to the Agricultural Commissioner quarterly within 15 days after the end of the previous quarter, and upon request. The report is required even if no pests were found or treatment occurred. It may consist of	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		a copy of all records for the previous quarter or may be a summary letter/report as long as the original detailed records are available upon request. 3. A long-term strategy for weed and pest control and management during the operation of the proposed project. Such strategies may include, but are not limited to: • Use of specific types of herbicides and pesticides on a scheduled basis. 4. Maintenance and management of project site conditions to reduce the potential for a significant increase in pest-related nuisance conditions on surrounding agricultural lands. 5. The project shall reimburse the Agricultural Commissioner's office for the actual cost of investigations, inspections, or other required non-routine responses to the site that are not funded by other sources.	
Air Quality			
Impact 3.4-1: Conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	**AQ-1** **Fugitive Dust Control.** During construction activities, the constructor contractor shall employ the following PM_{10} reducing measures: 1. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using Imperial County Air Pollution Control District-approved chemical stabilizers/suppressant before the commencement of construction, and every 30 days thereafter until the end of all construction activities. Unpaved roads associated with construction include: • The driveway entrance off State Route 98; • The project designated 3.5-acre staging/parking area north of the All-American Canal; • The 1.0 mile of dirt road south of the All-American Canal; and	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• The 20 miles of existing dirt road paralleling the U.S./Mexico Border from Gordon Wells Road to the project site. Monthly application of Imperial County Air Pollution Control District-approved chemical stabilizers/suppressant shall be applied at a rate of 0.1 gallon/square yard of chemical dust suppressant. 2. Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain Imperial County Air Pollution Control District and Imperial County Planning and Development Services Department (ICPDS) approval. 3. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. Whereas these Regulation VIII measures are mandatory and are not considered project environmental mitigation measures, the ICAPCD CEQA Handbook's required additional standard and enhanced mitigation measures listed below shall be implemented prior to and during construction. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process. **ICAPCD Standard Measures for Fugitive Dust (PM_{10}) 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 groundcover. • All on-site and off-site 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.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• 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. **ICAPCD "Discretionary" Measures for Fugitive Dust (PM_{10}) Control**	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Water exposed soil only in those areas where active grading and vehicle movement occurs with adequate frequency to control dust. • Replace ground cover in disturbed areas as quickly as possible. • Automatic sprinkler system installed on all soil piles. • Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site. • Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees. • Implement a shuttle service to and from retail services and food establishments during lunch hours. **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. • Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set). **Enhanced Mitigation Measures for Construction Equipment**	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		To help provide a greater degree of reduction of PM emissions from construction combustion equipment, ICAPCD recommends the following enhanced measures. • Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways. • Implement activity management (e.g., rescheduling activities to reduce short-term impacts). **AQ-2** **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 the project site 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-3** **Dust Suppression.** The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. 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-4** **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.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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.	
Biological Resources			
Impact 3.5-1: Impact on special-status species	Significant	**BIO-1** **Rare Plant Surveys.** Prior to initiating ground disturbance, rare plant surveys shall be conducted within suitable habitat on the project site during the appropriate blooming period for the Abrams' spurge (approximately September through November), Wiggins' croton (approximately March through May), and sand food (approximately April through June). The surveys shall be conducted by a botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. If project-related impacts to rare plants on the project site are unavoidable, then consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements. **BIO-2** **General Impact Avoidance and Minimization Measures.** The following measures will be applicable throughout the life of the project: • To reduce the potential indirect impact on migratory birds, bats and raptors, the project will comply with the APLIC 2012 Guidelines for	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). • All electrical components on the project site shall be either undergrounded or protected so that there will be no exposure to wildlife and therefore no potential for electrocution. • The project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for the biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist will be familiar with the local habitats, plants, and wildlife. The Project Biologist will also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and monitor construction. The Project Biologist will monitor activities within construction areas during critical times, such as vegetation removal, the implementation of Best Management Practices (BMP), and installation of security fencing to protect native species. The Project Biologist will ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. • The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) will be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment will be confined to the flagged areas. • No potential wildlife entrapments (e.g., trenches, bores) will be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies will be covered or capped in storage or laydown area, and at the end of each workday in construction, quarrying and processing/handling areas. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches will be left open either temporarily or permanently. • No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), may be used within the project site, on off-site project facilities and activities, or in support of any other project activities. • Avoid wildlife attractants. All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife. Water applied to dirt roads and construction areas for dust abatement shall use the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins will be removed to avoid attracting wildlife to the active work areas. • To minimize the likelihood for vehicle strikes on wildlife, speed limits will not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/ maintenance roads. • Avoid night-time construction lighting or if nighttime construction cannot be avoided use shielded directional lighting pointed downward and towards the interior of the project site, thereby avoiding illumination of adjacent natural areas and the night sky. • All construction equipment used for the Project will be equipped with properly operating and maintained mufflers. • Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, will be stored	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		within secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment will consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/Visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. • The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, will be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. • In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor will ensure that all portable fuel containers are removed from the project site. • All equipment will be maintained in accordance with manufacturer's recommendations and requirements. • Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. • The Contractor will utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment will occur in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species. • Appropriate BMPs will be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from bridge construction to prevent their deposition in waterways. No sediment or debris will be allowed to enter the creek or other drainages. All debris from construction of the bridge will be contained so that it does not fall into channel. Appropriate BMPs will be used by the Contractor during construction to limit the spread of resuspended sediment and to contain debris. • Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard. • Firearms, open fires, and pets would be prohibited at all work locations and access roads. Smoking would be prohibited along the Project alignment. • Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance. • Any injured or dead wildlife encountered during project-related activities shall be reported to the project biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify the	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery. • Stockpiling of material will be allowed only within established work areas. • Actively manage the spread of noxious weeds. • The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving. **BIO-3** **Worker Environmental Awareness Program.** Prior to project construction, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts to special-status biological resources and the potential penalties for impacts to these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following: • The purpose for resource protection; • A description of special-status species including representative photographs and general ecology; • Occurrences of USACE, RWQCB, and CDFW regulated features in the Project study area; • Regulatory framework for biological resource protection and consequences if violated; • Sensitivity of the species to human activities; • Avoidance and minimization measures designed to reduce the impacts to special-status biological resources; • Environmentally responsible construction practices; • Reporting requirements;	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• The protocol to resolve conflicts that may arise at any time during the construction process; and • Workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed and would be kept on record. **BIO-4 Burrowing Owl Avoidance and Minimization.** Take Avoidance (pre-construction) surveys for burrowing owl shall be completed prior to project construction. Surveys shall be conducted as detailed within Appendix D of the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game [CDFG] 2012). If burrowing owl is not detected, construction may proceed. • If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities. • If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities. **BIO-5 Pre-Construction 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	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		August 31 for the majority of migratory bird species), a pre-construction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the northern harrier, yellow warbler, burrowing owl, and loggerhead strike, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting-bird survey shall include the project site 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. If construction activities cease for a period of greater than three days during the bird breeding season, a pre-construction nesting bird survey shall be conducted prior to the commencement of activities. Final construction buffers or setback distances shall be determined by the qualified biologist in coordination with USFWS and CDFW on a case-by-case basis, depending on the species, season in which disturbance shall occur, the type of disturbance, and other factors that could influence susceptibility to disturbance (topography, vegetation, existing disturbance levels, etc.). **BIO-6** **Pre-Construction Survey for Special-Status Species.** A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys should take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present on the project site or that were identified as having a high potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, burrowing owl, norther harrier, and yellow warbler. Should any special-status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		measures with the appropriate agency (USFWS, CDFW) may need to be undertaken. **BIO-7** **Bat Acoustic Surveys and Monitoring.** To avoid impacts to bat species, a qualified bat biologist shall conduct an appropriate combination of sampling, exit counts, and acoustic surveys to determine if bats are using the palm tree resources in the project area. If project-related impacts to bat species are unavoidable, additional measures may need to be implemented to reduce or eliminate impacts to bat species, including maternity roosts, such as tree removal occurring outside of bat breeding season (October through February) or two-step, two-day removal of palm trees under supervision of a qualified bat biologist.	
Cultural Resources			
Impact 3.6-1: Substantial adverse change in the significance of a historical resource.	Significant	**CR-1** **Environmentally Sensitive Area Fencing.** Prior to issuance of grading permits and in coordination with a qualified archaeologist to be retained by the project applicant, the construction zone shall be narrowed or otherwise altered to avoid Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008. The area within 100 feet of Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008 shall be designated Environmentally Sensitive Area (ESA) and fenced or flagged with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts. The ESA fencing or flags shall remain in place throughout project construction. **CR-2** **Evaluate Significance of Find (Unknown Cultural Resources).** If subsurface deposits believed to be cultural 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	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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 professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. • If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the Imperial County Planning and Development Services Department. The Imperial County Planning and Development Services Department shall consult with the professional archaeologist on a finding of eligibility and implement appropriate treatment measures if the find is determined to be an Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, or an Historic Property, as defined in 36 CFR 60.4. 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 site either: 1) is not an Historical Resource under CEQA or an Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.	
Impact 3.6-2: Substantial adverse change in the significance of an archaeological resource.	Significant	**CR-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 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.	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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 3.6-3: Disturb human remains.	Significant	**CR-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,	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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.	
Geology and Soils			
Impact 3.7-2: Possible risks to people and structures caused by strong seismic ground shaking.	Significant	**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;	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Liquefaction; and • 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.	
Impact 3.7-3: Possible risks to people and structures caused by seismic related ground failure, including liquefaction.	Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-5: Substantial soil erosion or the loss of topsoil.	Significant	Implement Mitigation Measures GEO-1 and HYD-1.	Less than Significant
Impact 3.7-6: 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.	Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-7: Expansive soils.	Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-9: Directly or indirectly destroy paleontological resources.	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	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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.	
Hydrology/Water Quality			
Impact 3.10-1: Violation of water quality standards.	Significant	**HYD-1** **Prepare SWPPP and Implement BMPs Prior to Construction and Site Restoration.** The project applicant or its contractor shall prepare an 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)	Less than Significant

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• 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, Source Control, and Treatment Control BMPs into Final Project Drainage Plan.** The project's Final Drainage Plan shall adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other recognized	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. The Final Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and shall include source control and treatment BMPs to adequately treat collected runoff prior to discharge, as necessary.	
Impact 3.10-3: Result in substantial erosion or siltation on or off site.	Significant	Implement Mitigation Measure HYD-1.	Less than Significant
Impact 3.10-4: Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.	Significant	Implement Mitigation Measure HYD-1.	Less than Significant
Impact 3.10-5: 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.	Significant	Implement Mitigation Measures HYD-1 and HYD-2.	Less than Significant
Impact 3.10-8: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Significant	Implement Mitigation Measures HYD-1 and HYD-2.	Less than Significant

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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 project applicant 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 project applicant does not have control of an alternate site. Therefore, an alternative site was eliminated from further consideration in this EIR.

Original Site Plan Submittal

The project applicant originally proposed to construct and operate a 100 MW solar energy facility with an integrated 100 MW BESS on approximately 531 acres (APNs 059-290-010, 059-300-015, and 059-300-017). Based on a biological reconnaissance survey of the 531-acre site, the following sensitive vegetation communities were found to be present on the western parcel (APN 059-209-010): arrow weed thickets, tamarisk thickets, and alkali weed – salt grass playas and sinks. Furthermore, one freshwater emergent wetland occurs on the western parcel. To minimize impacts on biological resources, the project applicant re-designed the project to remove the western parcel (APN 059-209-010). The western parcel would not be developed. This re-design reduced the original project site from 531 acres to 450 acres.

The original site plan on 531 acres would result in increased biological resources impacts and increased jurisdictional water impacts compared to the proposed project. Therefore, the County rejects to original site plan from further analysis.

Original Access Route for Heavy Construction Equipment

The project applicant's originally proposed access route for heavy construction equipment was via State Route 98 east to the East Highline Check of the All-American Canal bridge crossing to the project entrance. After coordination with the IID, IID determined that the bridge crossing would not be able to handle the weight of heavy construction equipment.

Although the use of the original access route would be a shorter distance to the project site and would result in less miles traveled, the County rejects the original access route from further analysis due to increased hazards and safety impacts.

Alternatives Evaluated

The environmental analysis for the proposed project evaluated the potential environmental impacts resulting from implementation of the proposed project, as well as alternatives to the project. The alternatives include Alternative 1: No Project/No Development and Alternative 2: Reduced Project Site. A detailed discussion of the alternatives considered is included in Chapter 7. Table ES-2 summarizes the impacts resulting from the proposed project and the identified alternatives.

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), "the specific alternative of 'no project' shall also be evaluated along with its impacts. 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 developed.

The No Project/No Development Alternative would not meet a majority 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 Senate Bill 32.

Alternative 2: Reduced Project Site

The purpose of this alternative is to reduce the size of the project site to minimize impacts on biological resources by increasing the setback of the project from sensitive vegetation communities and aquatic resources. Tamarisk thickets, identified by CDFW as a sensitive natural community, have been mapped on the northern parcel (APN 059-300-015) of the project site. Freshwater forested/shrub wetland, riparian habitat, and disturbed riparian habitat have also been mapped on the northern parcel of the project site. This alternative would remove the northern parcel (APN 059-300-015), thereby reducing the project site by 301 acres from 450 acres to 149 acres.

As shown in Table ES-2, this alternative would reduce impacts to agricultural resources, 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 100 MW of renewable solar energy, as there would be less area available for the placement of PV structures.

Environmentally Superior Alternative

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-2, Alternative 2 would reduce impacts for the following environmental issue areas as compared to the proposed project: agricultural resources, air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems. Therefore, Alternative 2 is considered the Environmentally Superior Alternative.

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Table ES-2. 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	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Agricultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact (Avoid)*	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Air Quality	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Biological Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Cultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Geology and Soils	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Similar Impact
GHG Emissions	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact

Table ES-2. Comparison of Alternative Impacts to Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Hazards and Hazardous Materials	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Hydrology/ Water Quality	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Land Use/Planning	No Impact	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Similar Impact	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Similar Impact
Noise and Vibration	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Transportation	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Tribal Cultural Resources	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Utilities/Service Systems	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Less Impact

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 4 Solar Energy Project. 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

The project site is located on approximately 450 acres of privately-owned land in the southernmost portion of Imperial County, California. The project site is between the U.S./Mexico international border and the All-American Canal, on the California side. The project site is proposed on two parcels (Assessor Parcel Numbers 059-300-015 and 059-300-017) that are contiguous with each other.

The proposed project consists of three primary components: 1) solar energy generation equipment and associated facilities including a substation and access roads (herein referred to as “solar energy facility”); 2) battery energy storage system (BESS); and 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the existing Imperial Irrigation District’s (IID) 92-kV “P” line.

The proposed project involves the construction of a 100-megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy facility with an integrated 100 MW battery storage system (not to exceed 200 MW) on approximately 450 acres of land. The project proposes to utilize either thin film or crystalline solar PV technology modules mounted either on fixed frames or horizontal single-axis tracker systems. The project would include electronic/electrical equipment, an on-site substation, access road(s) and fencing. The electrical energy produced by the project would be conducted through the project’s interconnection facilities to the proposed 92 kV generator intertie (gen-tie) line and delivered to the existing IID approved point of interconnection on the 92-kV “P” Line located immediately north of the project site and the All-American Canal.

1.1.1 Agency Roles and Responsibilities

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

County of Imperial

Implementation of the project would involve the following approvals by the County of Imperial:

1. **Approval of Conditional Use Permit (CUP) – Solar Energy Facility.** 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 two privately-owned legal parcels zoned Heavy Agriculture with a Renewable Energy Zone Overlay (A-3-RE). Pursuant to Title 9, Division 5, Chapter 9, the following uses are permitted in the A-3 zone subject to approval of a CUP from Imperial County:

i) Battery Storage Facility (must be connected to an existing electrical power generation plant such as solar, geothermal, wind, natural gas, or other renewable energy generator, as an accessory unit to said power plant).

oo) Major facilities relating to the generation and transmission of electrical energy, provided 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, meeting the requirements in Division 17.

zz) Solar energy plants meeting the requirements in Division 17.

2. **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 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)

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.

UNITED STATE BORDER PATROL

- The project applicant and U.S. Border Patrol will develop and enter into a Memorandum of Understanding (MOU) setting forth the project-related activities that may occur on an existing dirt road used by the U.S. Border Patrol.

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 consultant 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 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 retails 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.

1.2.3 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.

1.2.4 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.

1.2.5 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.

1.2.6 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.

1.2.7 Federal Clean Water Act (33 United States Code Sections 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.

1.2.8 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.

1.2.9 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.

1.2.10 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.

1.2.11 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.

1.2.12 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 45-day public review period, from November 22, 2022, through January 10, 2023, 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 adopt 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 4 Solar Energy Project on May 4, 2021. 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 May 4, 2021, and in the Calexico Chronicles on May 6, 2021. 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
- Imperial County Air Pollution Control District
- Imperial County Department of Public Works
- Native American Heritage Commission

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 4 Solar Energy Project was discussed as an informational item at the County's Environmental Evaluation Committee meeting on May 13, 2021.

Additionally, a virtual scoping meeting for the general public as well public agencies was held on May 13, 2021, 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 May 4, 2021, and in the Calexico Chronicles on May 6, 2021. 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. No written or verbal comments were received during the scoping meeting.

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
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- GHG Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise and Vibration
- 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 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 impacts on IID drains, project site access for construction workers, construction vehicles and equipment, and operational requirements (e.g., periodic maintenance and emergency response access), and U.S./Mexico border patrol operations.

1.4.5 Document Organization

The structure of the Draft EIR is identified below. The Draft EIR is organized into 11 chapters, including the Executive Summary.

- 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 4 Solar Energy Facility Project. 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; geology and soils; GHG emissions; hazards and hazardous materials; hydrology/water quality; land use and planning; noise and vibration; transportation; tribal cultural resources; 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.

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2 Project Description

Chapter 2 provides a description of the VEGA SES 4 Solar Energy Project. 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 project implementation.

The proposed project consists of three primary components: 1) solar energy generation equipment and associated facilities including a substation and access roads (herein referred to as "solar energy facility"); 2) battery energy storage system (BESS); and 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the existing IID 92-kV "P" line. The solar energy facility, BESS and gen-tie are collectively referred to as the "proposed project" or "project."

2.1 Project Location

The project site is located on approximately 450 acres of privately-owned land in the southernmost portion of Imperial County, California (Figure 2-1). The project site is between the U.S./Mexico international border and the All-American Canal, on the California side. It is approximately 10 miles east of the City of Calexico in Sections 10, 11, 14, 15, and 16 within Township 17 South, and Range 16 East of the San Bernardino Base and Meridian of the Bonds Corner topographic 7.5-minute quadrangle. The irregular shaped project site is bound by undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities to the west and east, the All-American Canal running southwest on the northern border of the project site, and the U.S./Mexico international border to the south. The project site is currently characterized by flat and undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities.

2.1.1 Solar Energy Facility

As depicted on Figure 2-2, the solar energy facility site is proposed on two parcels that are contiguous with each other. Table 2-1 identifies the individual assessor parcel numbers (APN) with their respective acreage and zoning.

Table 2-1. Solar Energy Facility Site Assessor Parcel Numbers, Acreages, and Zoning

APN	Acreage	Zoning
059-300-015	301.73	A-3-RE
059-300-017	148.88	A-3-RE
Total Gross Acres	450.61	--

APN = assessor parcel number; A-3-RE = Heavy Agriculture with a Renewable Energy Zone Overlay

2.1.2 Battery Energy Storage System

The project includes a BESS within the northeastern portion of the solar energy facility site (APN 059-300-015).

Figure 2-1. Regional Location

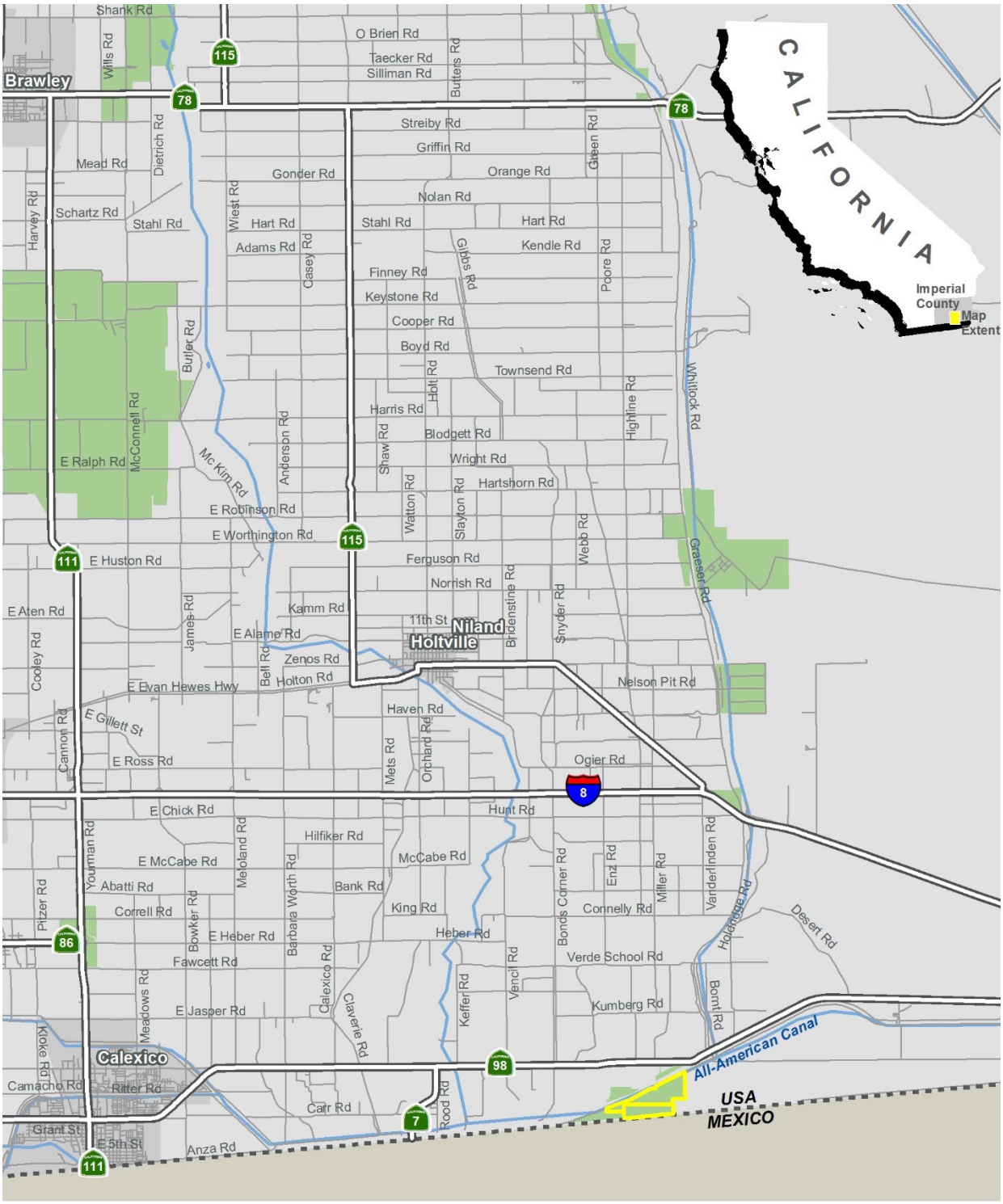
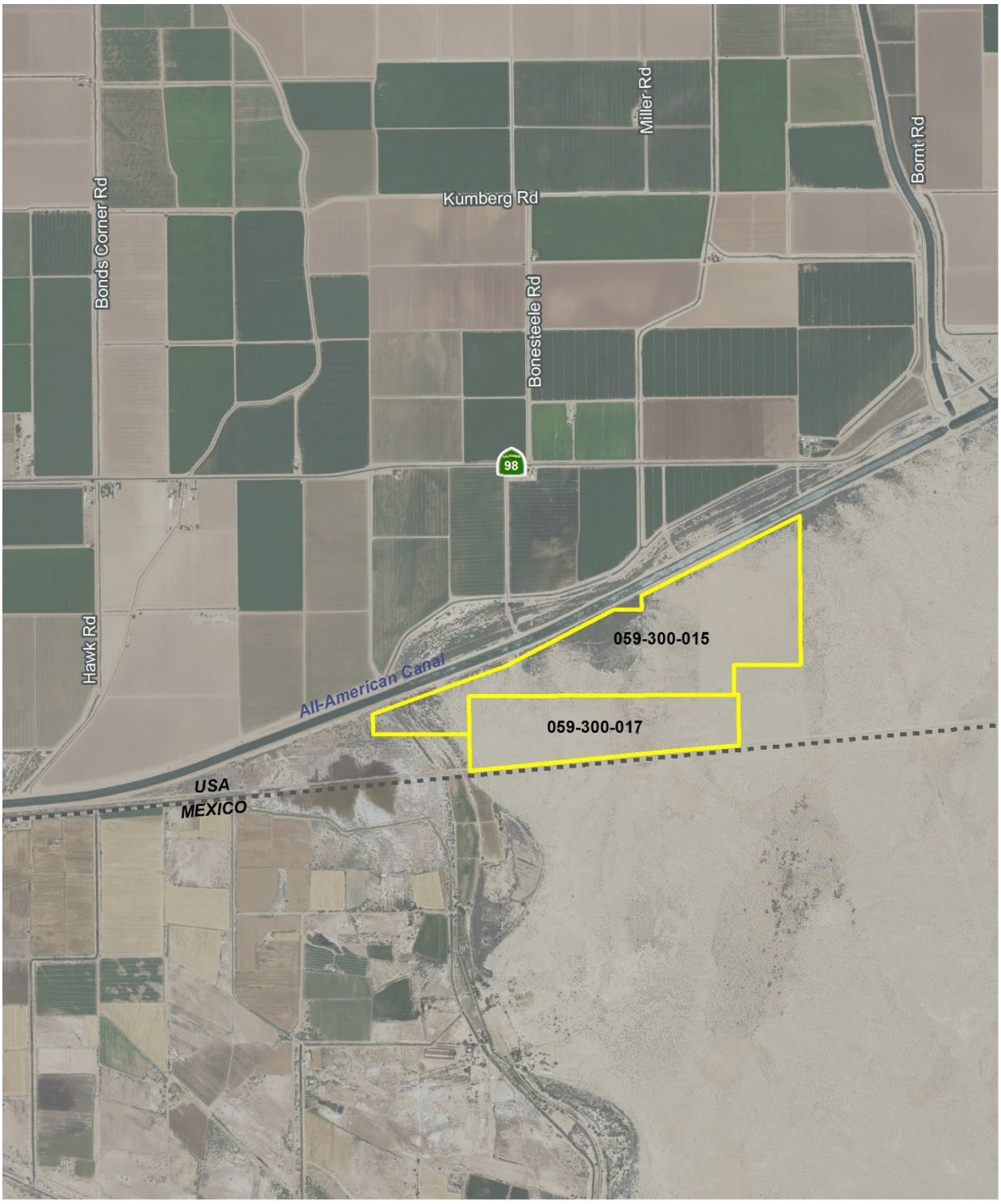


Figure 2-2. Project Site



2.1.3 Gen-Tie Line

The electrical energy produced by the project would be conducted through the project's interconnection facilities to the proposed 92 kV generator intertie (gen-tie) line and delivered to the existing IID approved point of interconnection (POI) on the 92 kV "P" Line located immediately north of the project site and the All-American Canal.

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 project site is located within the RE Overlay Zone. Therefore, no General Plan Amendment or Rezone would be required to implement the proposed project.

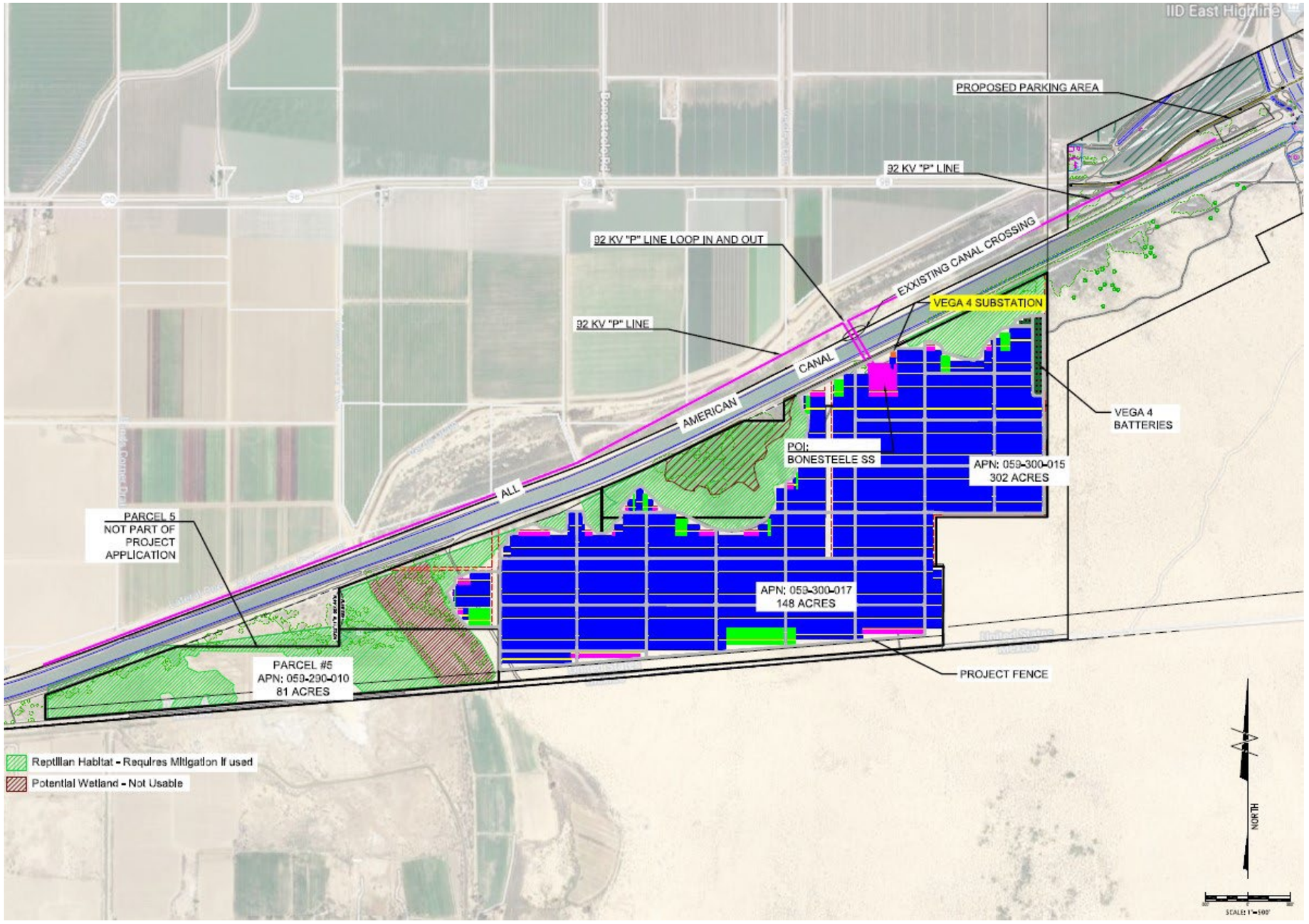
2.2 Project Objectives

- Construct and operate a solar energy facility capable of producing up to 100-megawatt (MW) alternating current (AC) of electricity to assist the State of California in achieving its 60 percent renewable portfolio standard by 2030.
- Provide a 100 MW energy BESS, 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.
- Interconnect directly to IID's existing electrical transmission system.
- Help California meet its statutory and regulatory goal of increasing renewable power generation, including greenhouse gas reduction goals of Senate Bill 32.
- Minimize and mitigate any potential impact to sensitive environmental resources within the project area.

2.3 Project Characteristics

The proposed project involves the construction and operation of a 100 MW AC PV solar energy facility with an integrated 100 MW BESS (not to exceed 200 MW) on approximately 450 acres of land. As shown in Figure 2-3, the project site would be developed with a ground mounted PV solar power generating system, supporting structures, on-site substation, BESS, interconnection facilities, and internal access roads. The project would employ the use of PV power systems to convert solar energy into electricity using non-reflective technology.

Figure 2-3. Site Plan



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2.3.1 Photovoltaic Panels/Solar Arrays

PV solar cells convert sunlight directly into direct current electricity. The process of converting light (photons) to electricity (voltage) in a solid-state process is called the photovoltaic effect. A number of individual PV cells are electrically arranged and connected into solar PV modules, sometimes referred to as solar panels.

The project proposes to utilize either thin film or crystalline solar photovoltaic (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 depth of the piles would be dependent on the recommendations of the geotechnical report prepared for the project. The fixed-frame racks would be secured at a fixed tilt of 20-30 degrees from horizontal facing a southerly direction. Current project designs would have individual PV modules, mounted two high on a fixed frame, providing a two-foot 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. Current project designs would have individual HSAT PV modules, each approximately two feet wide by four feet long (depending on the specific PV technology selected), mounted on a frame which is attached to an HSAT system. The HSAT arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide roads, consistent with Imperial County Fire Department emergency access requirements.

2.3.2 Electrical Power System

Electricity generated by the PV modules would be collected by a direct current (DC) collection system routed underground in trenches. This DC power would be delivered to one of the pad-mounted inverters in weatherproof enclosures located within the arrays. The inverters would convert the DC power to three-phase alternating current (AC). The inverters could be connected to AC interconnection facilities which, if needed, would raise the voltage to 34.5 kilovolt (kV), or the interconnection voltage selected by the project. Underground or overhead 12.5 kV or 34.5 kV collection lines would transmit the electricity to the new project substation.

2.3.3 Interconnection Facilities

A new substation would be constructed on approximately two acres on the north-central portion of the project site. The substation would take the 34.5 kV power from the project and increase the voltage of

the electricity to 92 kV, where it would feed into the interconnection switching station for metering and delivery to the IID 92 kV "P" Line. The substation would include a transformer, circuit breakers, disconnect switches, and microwave or other communication facilities.

A new interconnection switching station would be constructed on the north-central portion of the project 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 92 kV and be equipped with two circuit breakers, allowing for looping in of the IID 92 kV "P" 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 92 kV line. The switching station would be enclosed within its own fence.

To connect the project's interconnection facilities, the medium voltage power produced by the project would be conveyed underground, or above ground where necessary, to cross over any sensitive site features. The design of the project's interconnection facilities 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.

2.3.4 Gen-Tie

The electrical energy produced by the project would be conducted through the project's interconnection facilities to the proposed 92 kV generator intertie (gen-tie) line and delivered to the existing IID approved POI on the 92 kV "P" Line. As shown in Figure 2-3, the project's proposed 92 kV gen-tie would extend across the All-American Canal from the proposed project substation to the existing IID 92 kV "P" Line located immediately north of the canal. The height of the proposed gen-tie transmission structures would be 60 feet. The A-3 zone allows a maximum height limit of 120 feet for non-residential structures.

2.3.5 Battery Energy Storage System

The proposed BESS is proposed on approximately two acres on the northeast portion of the project site. The BESS would have a storage capacity of 100 MW (not exceed 200 MW). The BESS would consist of either lithium ion or flow batteries. The batteries will either be housed in storage containers or buildings fitted with HVAC and fire suppression systems as necessary, depending on the final selection of battery technology. 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 DC power to AC power.

2.3.6 Security

Six-foot high security fencing would be installed around the perimeter of the project site at the commencement of construction and site access would be limited to authorized site workers. The project fence on the south would be setback a minimum of 180 feet from the U.S./Mexico international border. 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.

2.3.7 Site Access

The project site would be accessed via the following:

- **Worker Access:** Workers would utilize an existing driveway off State Route 98, park their vehicles in a designated staging/parking area north of the All-American Canal, and then walk across the All-American Canal at an existing crossing east of the project site (Figure 2-4 and Figure 2-5). No vehicles or construction vehicles are allowed to travel across this existing crossing. Designated shuttles would pick up workers at the south end of the crossing, and then travel west for approximately one mile along an existing dirt road to the project site.
- **Heavy Construction Equipment Access:** Vendors and heavy construction equipment would exit south from Interstate 8 onto Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing dirt road paralleling the U.S./Mexico Border (Figure 2-6). See Section 2.4.2 for a detailed description of this access route for heavy construction equipment. The applicant has entered into a Memorandum of Understanding with the U.S. Border Patrol setting forth the project-related activities that may occur on this existing dirt road used by the U.S. Border Patrol (see Section 2.7.3 for a detailed discussion).

The project driveways would be provided with a minimum of 30-foot double swing gates with “Knox Box” for keyed entry. Emergency response personnel would be provided with manual override capability in order to access the site facility.

To accommodate emergency access, PV panels would be spaced to maintain proper clearance. Internal access roads, up to 30-foot wide, would be constructed along the perimeter fence and solar panels to facilitate vehicle access and maneuverability for emergency unit vehicles.

2.3.8 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.

2.4 Site Construction

2.4.1 Construction Activities

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. Construction is estimated to take 12-18 months and would begin in late 2022 or 2023.

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).

A temporary, portable construction supply container would be located at the project site at the beginning of construction and removed at the end of construction.

The number of on-site construction workers for the solar facility is not expected to exceed 150 workers at any time. The number of on-site construction workers for the BESS and substation is not expected to exceed 100 workers at any one time. Onsite parking would be provided for all construction workers.

2.4.2 Heavy Construction Equipment Access

Following discussions with the IID, it was determined heavy construction vehicles would cross the All-American Canal at Gordon Wells Road located approximately 20 miles east of the project site (Figure 2-6). Access for heavy construction vehicles to and from the project site requires crossing the All-American Canal, via two existing bridges (Figure 2-7), located along Gordon Wells Road. Gordon Wells Road has an interchange with I-8. The bridges over the canal were constructed in 2009. The bridges are rated as open with no restrictions and have a “Good” condition rating.

An estimated two trucks would arrive at the project site each day during the first few weeks of construction of the solar facility.

2.4.3 Parking and Staging Areas

As described above, workers would utilize an existing driveway off State Route 98 (Figure 2-4) and then park their vehicles in a designated staging/parking area, approximately 3.5 acres in size, north of the All-American Canal (Figure 2-3). The staging/parking area will need to be improved to facilitate access and minimize parking conflicts. Dust would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the ICAPCD.

Figure 2-4. Construction Worker Access

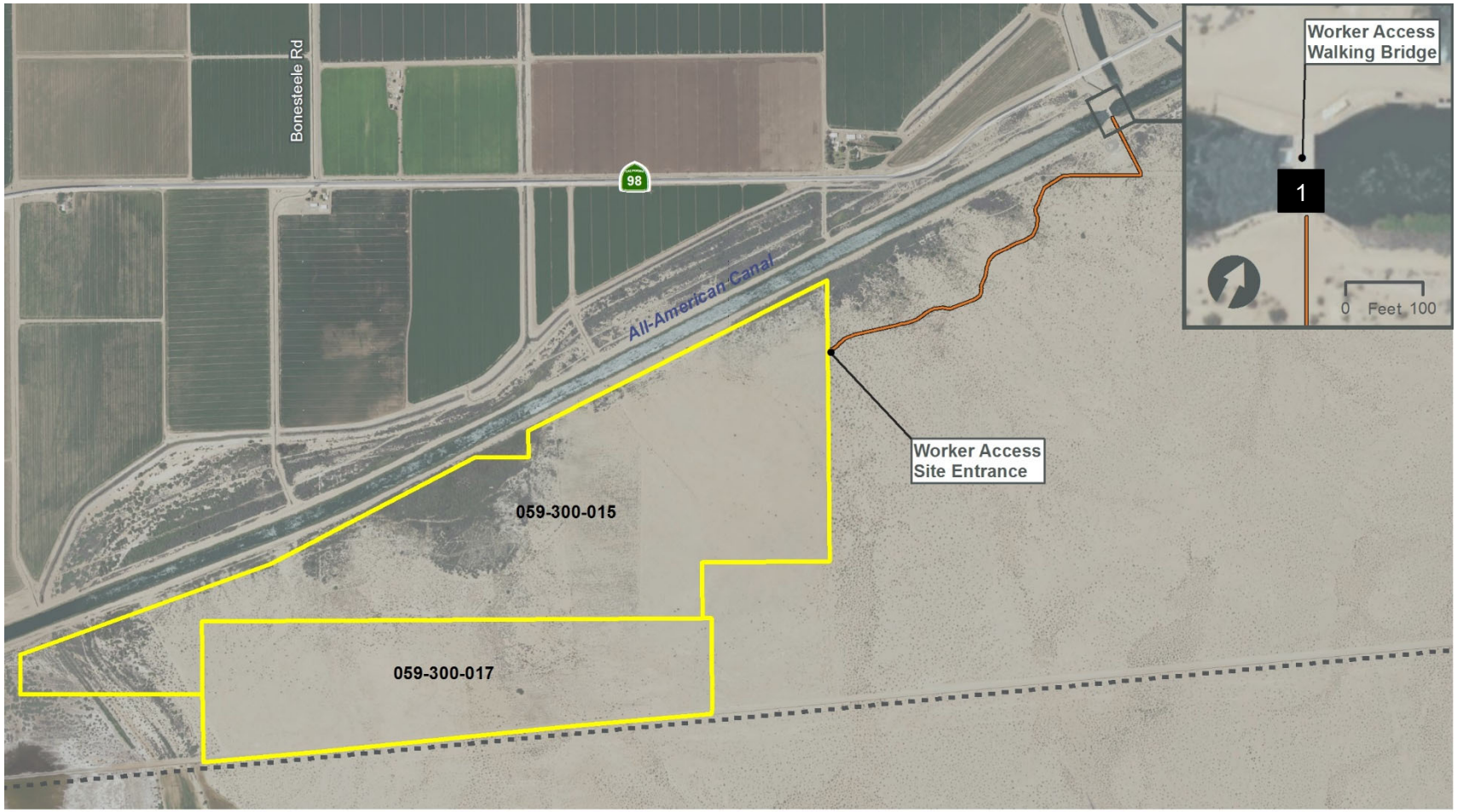

Figure 2-5. Bridge Crossing – Pedestrian Access Only

Figure 2-6. Proposed Heavy Construction Equipment Access

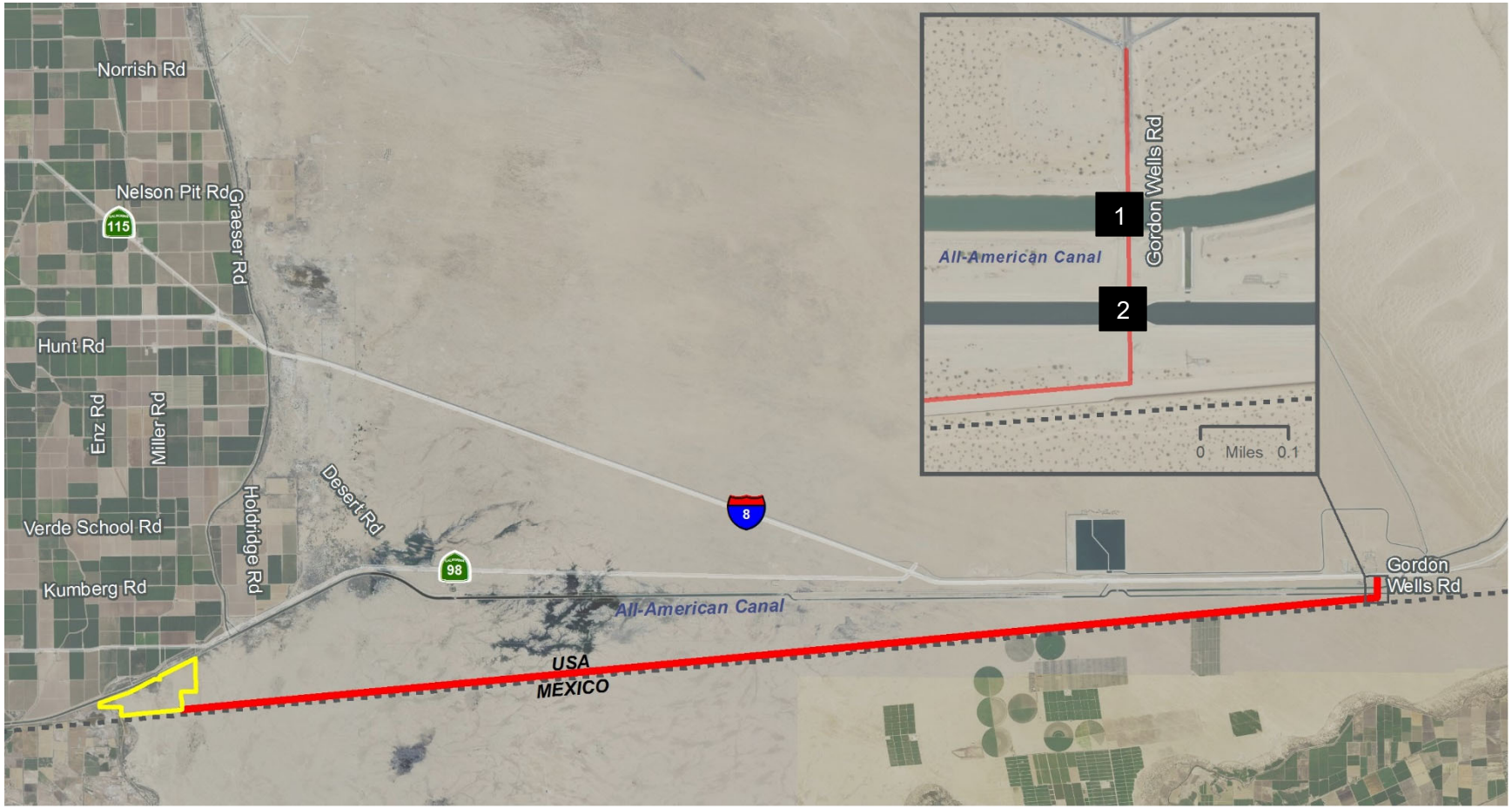

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Figure 2-7. Proposed Bridge Crossings over All-American Canal

Bridge over north American Canal

Bridge over south American Canal

2.4.4 Water Use

Water for construction, primarily for dust control, would be obtained from local IID irrigation canals or laterals in conformance with IID rules and regulations for municipal, commercial, and industrial (MCI) temporary water use. Water would be picked up from the All-American Canal and delivered to the construction location by a water truck which would be capable of carrying approximately 4,000 gallons per load. It is estimated that up to 183 acre-feet of water would be needed for site grading and dust control over the expected construction period.

2.5 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. The amount of water needed for solar panel washing is estimated at approximately 5 AF per washing, with up to two washings per year, or a total of up to 10 AF per year. Vegetation growing on the solar energy facility site would periodically (approximately every 3 months) be removed manually and/or treated with herbicides.

2.5.1 Water Use

Water for washing the PV modules would be purchased from the IID and delivered to the project site by water trucks. The volume of water to be used for PV module washing and dust control is estimated at up to 10-acre feet per year.

2.6 Restoration of the 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. 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.

2.7 Required Project Approvals

2.7.1 Imperial County

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

1. **Approval of CUP.** 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 two privately-owned legal parcels zoned Heavy Agriculture with a Renewable Energy Zone Overlay (A-3-RE). Pursuant to Title 9, Division 5, Chapter 9, the following uses are permitted in the A-3 zone subject to approval of a CUP from Imperial County:

   i) Battery Storage Facility (must be connected to an existing electrical power generation plant such as solar, geothermal, wind, natural gas, or other renewable energy generator, as an accessory unit to said power plant).

   oo) Major facilities relating to the generation and transmission of electrical energy, provided 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, meeting the requirements in Division 17.

   zz) Solar energy plants meeting the requirements in Division 17.

2. **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 deciding 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)

2.7.2 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. These agencies may include, but are not limited to the following:

- California RWQCB – Notice of Intent for General Construction Permit, CWA 401 Water Quality Certification
- ICAPCD – Fugitive Dust Control Plan, Rule 801 Compliance
- CDFW (Trustee Agency) – ESA Compliance, Section 1600 Streambed Alteration Agreement
- USFWS – ESA Compliance
- USACE – Section 404 of the CWA Permit
- IID – Water Supply Agreement

2.7.3 Memorandum of Understanding – U.S. Border Patrol

The project applicant and U.S. Border Patrol (USBP) will develop and enter into a Memorandum of Understanding (MOU) setting forth the project-related activities that may occur on an existing dirt road used by the USBP.

- Project applicant will provide an additional 60 feet of right-of-way along its southern end of the property to allow for additional protective area for the U.S. Border Patrol Services functions.
- Project applicant will install a 6-foot-high chain link fence with barb wire on top surrounding the project site.
- Project applicant will provide a mechanism acceptable to USBP for access to the site upon completion of the construction in the event USBP needs to enter for enforcement purposes.
- Project applicant will provide full-time security during construction of the project and will coordinate with USBP on this service.
- Project applicant will provide contact information for both construction phases and operation phases to make sure USBP has direct contact information.
- Project applicant will maintain the road between the site and its terminus at the I-8/HWY 98 intersection during the construction of the site in a manner prescribed by USBP. At a minimum this will be routine watering and as necessary grading. No material will be added to the road without approval from USBP. Additionally, no work will be done adjacent to the road that would interfere with USBP's 'brushing" program.
- Project applicant will have an agreement with US BREC for the pedestrian traffic crossing at the IID drop and will observe USBP protocols for all people crossing for the project both during construction and future operations.
- Project applicant will notify the USBP's designated representative prior to any use of the road from Gordons Well access to the site.

- USBP will immediately contact designated project representatives if they encounter a problem at the site in an effort to give project applicant an opportunity to cure.

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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 the County determined could result in "significant impacts," based on preparation of an Initial Study and review by the County's Environmental Evaluation Committee and responses received during the scoping process, including the NOP review period and public scoping meeting. 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 level less than significant. 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 and illustrated on Figure 2-2 (Chapter 2). Existing environmental conditions are based on the time at which the NOP was published on May 4, 2021. 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 and Visual Resources

This section provides a description of the existing visual and aesthetic resources within the project area and relevant state and local plans and policies regarding the protection of scenic resources. Effects to the existing visual character of the project 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 is summarized from the *Visual Impact Assessment Letter Report – VEGA SES 4 Project* (Appendix B of this EIR) prepared by ECORP Consulting, Inc.

3.2.1 Existing Conditions

The project site is located in south-central Imperial County. The irregular shaped project site is bound by undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities to the west and east, the All-American Canal running southwest on the northern border of the project site, and the U.S./Mexico international border to the south. The topography of the project site is relatively flat with elevations ranging between 38 feet and 60 feet) above mean sea level. The majority of the project site consists of creosote bush scrub, alkali weed, and disturbed land.

Scenic Vista

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 project 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.

Scenic Highways

According to the Conservation and Open Space Element, no State scenic highways have been designated in Imperial County (County of Imperial 2016). The project site is not located within a State scenic highway corridor, nor are there any State scenic highways located in proximity to the project site. The nearest road segment considered eligible for a State scenic highway designation is Interstate 8, located over five miles northwest of the project site.

Visual Character

Available public right of way in the vicinity of the project site includes SR-98 and Vencil Road. Visibility of the project site from the public right of way is obstructed from SR-98 by a berm. Visibility of the project site from Vencil Road is limited due to a distance of approximately 0.5 mile. Surrounding property is privately owned and viewers would be limited to property owners, employees servicing/maintaining IID facilities (e.g., the canal), and border patrol personnel.

Light, Glare, and Glint

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.

The project site is currently vacant and due to its rural location does not generate any light or glare under existing conditions.

3.2.2 Regulatory Setting

This section identifies and summarizes 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 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.

County 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.

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

General Plan Policies	Consistency with General Plan	Analysis
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.	Consistent	As described in Section 3.2.3, the proposed project would result in changes to the existing visual character of the project site. However, public views of the project site are limited, and the proposed project would not result in a significant deterioration in the visual character of the project site or surrounding area from public viewpoints.

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

General Plan Policies	Consistency with General Plan	Analysis
Objective 5.1: Encourage the conservation and enhancement of the natural beauty of the desert and mountain landscape.	Consistent	The project site is located on rural agricultural land located in Imperial County. The irregular shaped project site is bound by undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities to the west and east, the All-American Canal running southwest on the northern border of the project site, and the U.S./Mexico international border to the south. The project site is currently characterized by flat and undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities. Development of the project site would not impact the desert and mountain landscapes common in Imperial County.

Source: County of Imperial 2016

3.2.3 Impacts and Mitigation Measures

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

Due to the rural nature of the project site, the evaluation of potential visual impacts resulting from implementation of the proposed project was based on the following qualitative criteria:

- **Changes in Visual Quality.** The difference in visual quality between the existing environmental setting and post-project condition is considered visual quality change. Changes in visual quality were identified by studying engineering plans, which provide information on the various elements that would be added to the current viewshed and the degree of change in the existing visual setting.

- **Impacts to Visual Resources.** Visual resources from both the natural and built environments can enhance the visual character and aesthetic quality of an area. Visual resources can be associated with local events and history that represent and enhance the visual character of the local area. The project site and vicinity were studied for visual resources. A project that substantially alters important visual resources can result in adverse visual impacts. Mitigation is typically implemented to remove or minimize adverse visual impacts.
- **Light, Glare, Shade, and Shadow.** The existing light environment serves as a baseline to conduct light analysis and compare potential impacts caused by introduction of one of the alternatives. Impacts relating to light, glare, shade, and shadow were examined during field observations and photographs to help establish light conditions during various times of the day and night and to estimate the potential changes in the environment from project implementation. Impacts were evaluated based on how much the existing conditions change, the degree of those changes, and the sensitivity of the affected environment.
- **Compatibility with Visual Policies.** General plans, specific plans, and other regulations or policies relating to visual resources and setting at the project site were identified and reviewed, to assess the project's compatibility with applicable policies.

Impact Analysis

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

There are no designated scenic vistas in the project vicinity. The proposed project would involve the use of standard construction equipment including, but limited to, trucks, cranes, and tractors. The presence of this equipment within the project 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. 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 project site would change. However, given that there are no scenic resources or vistas within proximity to the project site, project operation would not have a substantial adverse effect on a scenic vista. Impacts are considered less than significant.

Mitigation Measure(s)

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?

According to the Conservation and Open Space Element, no State scenic highways have been designated in Imperial County (County of Imperial 2016). The project site is not located within a State scenic highway corridor, nor are there any State scenic highways located in proximity to the project site. The nearest road segment considered eligible for a State scenic highway designation is Interstate 8, located over five miles northwest of the project site. Therefore, no impacts to scenic resources within a designated state scenic highway would occur.

Mitigation Measure(s)

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?

The project site is located on a vacant site in rural Imperial County. Visibility of the project site from the public right of way is obstructed from SR-98 by a berm. Visibility of the project site from Vencil Road is limited due to a distance of approximately 0.5 mile. Surrounding property is privately owned and viewers would be limited to private property owners, employees servicing/maintaining IID facilities (e.g., the canal), and border patrol personnel.

Specifically, and as stated above in Impact 3.2-1, construction of the project would result in temporary visual changes due to the presence of construction equipment, materials, and construction activities. However, visual impacts during project construction would be short-term. Upon completion of construction, equipment and construction materials would no longer be present on-site. Therefore, project construction would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Project operation would change the visual character of the project site by altering the natural conditions of the site to a solar energy generation and battery storage facility. The main physical change that would occur is the complete removal of vegetation and grading of the project site to accommodate the construction of solar apparatus and security fencing. While the proposed PV module frames would be approximately 7.5 feet in height and the proposed security fencing would be approximately 6 feet in height, views of the project site are limited from public viewpoints, and, as such, the addition of solar infrastructure to the project site would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Other facilities proposed such as roads, pads, underground utilities, and stormwater facilities would not be readily visible from public viewpoints as these facilities would be at or below grade.

Based on the above evaluation, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning. Impacts are considered less than significant.

Mitigation Measure(s)

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?

As described in Chapter 2, Project Description, the project would include new sources of nighttime lighting. In addition, given the nature of the project (e.g., solar facility), this discussion also considers potential glare- and glint-related impacts generated by the proposed solar arrays. This discussion considers each issue under the associated headings below.

NIGHTTIME LIGHTING

Project construction may result in slight increases in nighttime lighting onsite if nighttime construction is warranted. However, public views of the project site are limited and, as such, construction-related nighttime lighting is not anticipated to adversely affect nighttime views. Additionally, visual impacts associated with nighttime lighting during project construction would be short-term. Upon completion of construction, equipment and construction materials would no longer be present on-site. Therefore, this is considered a less than significant impact.

Minimal lighting would be required for project operation and would be limited to safety and security functions. All lighting would be directed downward and shielded to confine direct rays to the project site and muted to the maximum extent consistent with safety and operational necessity (Title 9, Division 17, Chapter 2: Specific Standards for all Renewable Energy Projects, of the County's Zoning Ordinance).

If additional lighting should be required for nighttime maintenance, portable lighting equipment would be used. Based on these considerations, and the distance to potential viewers, the project is not anticipated to create a new source of substantial light which would adversely affect nighttime views in the project area, and the impact is considered less than significant.

GLARE AND GLINT

Project construction may result in slight increases in glare and glint onsite due to the presence of reflective construction equipment and materials. However, public views of the project site are limited and, as such, construction-related glare and glint are not anticipated to adversely affect day or nighttime views. Additionally, visual impacts associated with light and glare during project construction would be short-term. Upon completion of construction, equipment and construction materials would no longer be present on-site. Therefore, this is considered a less than significant impact.

The 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, upon operation, the PV panels would not create a significant source of glare during sunlight hours. Additionally, public views of the project site are limited and, as such, operation-related glare and glint, while minimal, are not anticipated to adversely affect day or nighttime views. The project would not use other reflective materials such a fiberglass, aluminum or vinyl/plastic siding, galvanized products, and brightly painted steel roofs that have the potential to create on- and off-site glare.

Shade and shadow effects would be introduced within the 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. Therefore, the proposed project would not result in a significant glare impact to motorists driving on roadways adjacent to the project site.

Mitigation Measure(s)

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 project, the project will be decommissioned and dismantled. The project site is relatively flat and primarily characterized by a level elevation. Therefore, 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 (pre-solar project) conditions following site decommissioning. Based on these conclusions, implementation of the project would not result in residual significant unmitigable impacts to the visual character of the project area or add substantial amounts of light and glare.

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3.3 Agricultural Resources

This section provides an overview of existing agricultural resources within the project site and identifies applicable federal, state, and local policies related to the conservation of agricultural lands. This includes a summary of the production outputs, soil resources, and adjacent operations potentially affected by the project. The impact assessment in Section 3.3.3 provides an evaluation of potential adverse effects on agricultural resources based on criteria derived from the CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description. Section 3.3.4 provides a discussion of residual impacts, if any.

No forestry resources are present within the project site and, therefore, this section focuses on issues related to agricultural resources.

3.3.1 Existing Conditions

Agriculture has been the single most important economic activity of Imperial County throughout the 20th century and is expected to play a major economic role in the foreseeable future. The gross annual value of agricultural production in the County has hovered around $1 billion for the last several years, making it the County's largest source of income and employment.

Imperial County agriculture is a major producer and supplier of high-quality plant and animal foods and non-food products. In 2019, agriculture contributed a total of $2.01 billion to the county economy. Vegetable and melon crops were the single largest production category by dollar value ($799 million). Livestock represented the second largest category ($522 million) and consisted mostly of feedlot cattle ($449 million). Field crops ranked third with $498 million (Imperial County Agricultural Commissioner 2019).

Important Farmland

According to the California Department of Conservation’s (DOC) California Important Farmland Finder, the majority of the project site is designated as Other Land (DOC 2021). A portion of the project site is designated as Farmland of Local Importance. Farmland of Local Importance is not considered an “agricultural land” per CEQA Statute Section 21060.1(a). The project site does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. No portion of the project site is currently being utilized for agricultural production and has remained in a fallow state for a period of time (exceeding five years).

Williamson Act Contract Land

According to the 2016/2017 Imperial County Williamson Act Map produced by the DOC, the project site is not located on Williamson Act contracted land (DOC 2016).

3.3.2 Regulatory Setting

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

State

California Land Conservation Act

The Williamson Act (California Land Conservation Act, California Government Code, Section 51200 et seq.) is a statewide mechanism for the preservation of agricultural land and open space land. The Act provides a comprehensive method for local governments to protect farmland and open space by allowing land in agricultural use to be placed under contract (agricultural preserve) between a local government and a landowner.

Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the County to maintain agricultural or open space use of their lands in return for reduced property tax assessment. The contract is self-renewing and the landowner may notify the County at any time of intent to withdraw the land from its preserve status. Withdrawal involves a 10-year period of tax adjustment to full market value before protected open space can be converted to urban uses. Consequently, land under a Williamson Act Contract can be in either a renewal status or a nonrenewable status. Lands with a nonrenewable status indicate the farmer has withdrawn from the Williamson Act Contract and is waiting for a period of tax adjustment for the land to reach its full market value. Nonrenewable and cancellation lands are candidates for potential urbanization within a period of 10 years.

The requirements necessary for cancellation of land conservation contracts are outlined in Government Code Section 51282. The County must document the justification for the cancellation through a set of findings. Unless the land is covered by a farmland security zone contract, the Williamson Act requires that local agencies make both the Consistency with the Williamson Act and Public Interest findings.

On February 23, 2010, the Imperial County Board of Supervisors voted to not accept any new Williamson Act contracts and not to renew existing contracts because of the elimination of the subvention funding from the state budget. The County reaffirmed this decision in a vote on October 12, 2010, and notices of nonrenewal were sent to landowners with Williamson Act contracts following that vote. The applicable deadlines for challenging the County's actions have expired, and, therefore, all Williamson Act contracts in Imperial County will terminate on or before December 31, 2018.

California Farmland Mapping and Monitoring Program

The California DOC, under the Division of Land Resource Protection, has set up the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use. The map series identifies eight classifications, as defined below, and uses a minimum mapping unit size of 10 acres.

- Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

- Unique Farmland consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.
- Farmland of Local Importance is land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.
- Urban and Built-up Land is occupied by structures with a building density of at least one unit to 1.5 acre, or approximately six structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, prisons, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
- Water is defined as perennial water bodies with an extent of at least 40 acres.
- Other Land is land not included in any other mapping category. Common examples include low density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined animal agriculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. More detailed data on these uses is available in counties containing the Rural Land Use Mapping categories.

The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every 2 years. Table 3.3-1 provides a summary of agricultural land within Imperial County converted to non-agricultural uses during the time frame from 2016 to 2018.

Table 3.3-1. Imperial County Change in Agricultural Land Use Summary (2016 to 2018)

	Total Acreage Inventoried		2016 to 2018 Acreage Changes			
Land Use Category	2016	2018	Acres Lost (-)	Gained (+)	Total Acreage Changed	Net Acreage Changed
Prime Farmland	190,206	189,163	1,699	656	2,355	-1,043
Farmland of Statewide Importance	297,272	291,596	6,330	654	6,984	-5,676
Unique Farmland	2,071	1,905	190	24	214	-166
Farmland of Local Importance	38,923	39,711	1,587	2,375	3,962	788
Important Farmland Subtotal	***528,472***	***522,375***	***9,806***	***3,709***	***13,515***	***-6,097***
Grazing Land	0	0	0	0	0	0

Table 3.3-1. Imperial County Change in Agricultural Land Use Summary (2016 to 2018)

Land Use Category	Total Acreage Inventoried		2016 to 2018 Acreage Changes			
	2016	2018	Acres Lost (-)	Gained (+)	Total Acreage Changed	Net Acreage Changed
Agricultural Land Subtotal	528,472	522,375	9,806	3,709	13,515	-6,097
Urban and Built-Up Land	37,412	41,764	301	4,653	4,954	4,352
Other Land	461,891	463,488	712	2,309	3,021	1,597
Water Area	749	897	125	273	398	148
Total Area Inventoried	**1,028,524**	**1,028,524**	**10,944**	**10,944**	**21,888**	**0**

Source: DOC 2018

Local

County of Imperial General Plan

The Agricultural Element of the County's General Plan serves as the primary policy statement for implementing development policies for agricultural land use in Imperial County. The goals, objectives, implementation programs, and policies found in the Agricultural Element provide direction for new development as well as government actions and programs. Imperial County's Goals and Objectives are intended to serve as long-term principles and policy statements to guide agricultural use decision-making and uphold the community's ideals.

Agriculture has been the single most important economic activity in the County throughout its history. The County recognizes the area as one of the finest agricultural areas in the world because of several environmental and cultural factors including good soils, a year-round growing season, the availability of adequate water transported from the Colorado River, extensive areas committed to agricultural production, a gently sloping topography, and a climate that is well-suited for growing crops and raising livestock. The Agricultural Element in the County General Plan demonstrates the long-term commitment by the County to the full promotion, management, use, and development and protection of agricultural production, while allowing logical, organized growth of urban areas (County of Imperial 2015).

The County's Agricultural Element identifies several Implementation Programs and Policies for the preservation of agricultural resources. The Agricultural Element recognizes that the County can and should take additional steps to provide further protection for agricultural operations and at the same time provide for logical, organized growth of urban areas. The County must be specific and consistent about which lands will be maintained for the production of food and fiber and for support of the County's economic base. The County's strategy and overall framework for maintaining agriculture includes the following policy directed at the preservation of Important Farmland:

The overall economy of the County is expected to be dependent upon the agricultural industry for the foreseeable future. As such, all agricultural land in the County is considered as Important Farmland, as defined by federal and state agencies, and should be reserved for agricultural uses. Agricultural land may be converted to non-agricultural uses only where a clear and immediate need can be demonstrated, such as requirements for urban housing, commercial facilities, or employment opportunities. All existing agricultural land will be preserved for irrigation agriculture, livestock production, aquaculture, and other agriculture-related uses except for non-agricultural uses identified in this General Plan or in previously adopted City General Plans.

The following program is provided in the Agricultural Element:

No agricultural land designated except as provided in Exhibit C [of the Agricultural Element] shall be removed from the Agriculture category except where needed for use by a public agency, for geothermal purposes, where a mapping error may have occurred, or where a clear long-term economic benefit to the County can be demonstrated through the planning and environmental review process. The Board (or Planning Commission) shall be required to prepare and make specific findings and circulate same for 60 days (30 days for parcels considered under Exhibit C of this [Agricultural] element) before granting final approval of any proposal, which removes land from the Agriculture category.

Also, the following policy addresses Development Patterns and Locations on Agricultural Land:

“Leapfrogging” or “checkerboard” patterns of development have intensified recently and result in significant impacts on the efficient and economic production of adjacent agricultural land. It is a policy of the County that leapfrogging will not be allowed in the future. All new non-agricultural development will be confined to areas identified in this plan for such purposes or in Cities’ adopted Spheres of Influence, where new development must adjoin existing urban uses. Non-agricultural residential, commercial, or industrial uses will only be permitted if they adjoin at least one side of an existing urban use, and only if they do not significantly impact the ability to economically and conveniently farm adjacent agricultural land.

Agricultural Element Programs that address “leapfrogging” or “checkerboard” development include:

All non-agricultural uses in any land use category shall be analyzed during the subdivision, zoning, and environmental impact review process for their potential impact on the movement of agricultural equipment and products on roads located in the Agriculture category, and for other existing agricultural conditions which might impact the projects, such as noise, dust, or odors.

The Planning and Development Services Department shall review all proposed development projects to assure that any new residential or non-agricultural commercial uses located on agriculturally zoned land, except land designated as a Specific Plan Area, be adjoined on at least one entire property line to an area of existing urban uses. Developments that do not meet these criteria should not be approved.

Table 3.3-2 provides a General Plan goal and policy consistency evaluation for the project.

Table 3.3-2. Project Consistency with Applicable General Plan Agricultural Policies

General Plan Policies	Consistency with General Plan	Analysis
Goal 1. All Important Farmland, including the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, as defined by federal and state agencies, should be reserved for agricultural uses.	Consistent	The project site does not contain Prime Farmland or Farmland of Statewide Importance. Therefore, the proposed project would not convert land designated as Prime Farmland or Farmland of Statewide Importance to non-agricultural uses. A portion of the project site is designated as Farmland of Local Importance. The project site is not currently utilized for agricultural production and has remained fallow for a period of time (exceeding five years). The proposed project would temporarily convert Farmland of Local Importance to non-agricultural uses. However, as part of the project, the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes the removal, recycling, and/or disposal of all solar arrays, inverters, transformers, and other structures on the project site, as well as restoration of the site to its pre-project condition. Therefore, the proposed project would not permanently convert Farmland of Local Importance to non-agricultural uses.
Objective 1.5.Direct development to less valuable farmland (i.e., Unique Farmland and Farmland of Local Importance rather than Prime Farmland or Farmland of Statewide Importance) when conversion of agricultural land is justified.	Consistent	The project site is located within the County's designated Renewable Energy zone and is, therefore, considered to be located within an area that has been determined to be appropriate for the development of solar facilities. The majority of the project site is designated as Other Land. A portion of the project site is designated as Farmland of Local Importance. A reclamation plan would be prepared for the project site, which, when implemented, would return the site to existing conditions after the solar use is discontinued.
Objective 1.6. Recognize and preserve unincorporated areas of the County, outside of city sphere of influence areas, for irrigation agriculture, livestock production, aquaculture, and other special uses.	Consistent.	The project site is located within the County's designated Renewable Energy Zone and is, therefore, considered to be located within an area that has been determined to be appropriate for the development of solar facilities. The project would temporarily convert land located in an unincorporated area to non-agricultural uses; however, with the approval of a CUP, the project would be considered an allowable use in an agricultural zone as a conditionally-allowed use.
Objective 1.8. Allow conversion of agricultural land to non-agricultural uses including renewable energy only where a clear and immediate need can be demonstrated, based on economic benefits, population projections and lack of other available land (including land within	Consistent	The project site is located within the County's designated Renewable Energy Zone and is, therefore, consistent with the General Plan. Additionally, with the approval of a CUP, the project would be consistent with the County's Land Use Ordinance. Therefore, the project is consistent with the County's General Plan land

Table 3.3-2. Project Consistency with Applicable General Plan Agricultural Policies

General Plan Policies	Consistency with General Plan	Analysis
incorporated cities) for such non-agricultural uses. Such conversion shall also be allowed only where such uses have been identified for non-agricultural use in a city general plan or the County General Plan and are supported by a study to show a lack of alternative sites.		use designation.
Objective 1.11. Control and prevent soil erosion when possible.	Consistent	The project would implement BMPs within the site during construction and long-term operation of the project.
Goal 2. Adopt policies that prohibit "leapfrogging" or "checkerboard" patterns of nonagricultural development in agricultural areas and confine future urbanization to adopted Sphere of Influence area.	Consistent	The project is located within the County's designated Renewable Energy Zone, which identifies areas that are considered appropriate for the development of renewable energy. The project does not include a residential component that would induce urbanization adjacent to the project. Furthermore, with the approval of a CUP, the project would be consistent with the County's Land Use Ordinance. Consistency with the Land Use Ordinance implies consistency with the General Plan land use designation.
Objective 2.1. Do not allow the placement of new non-agricultural land uses such that agricultural fields or parcels become isolated or more difficult to economically and conveniently farm.	Consistent	The project is located within the County's designated Renewable Energy Zone, which identifies areas that are considered appropriate for the development of renewable energy. Neither construction nor operation of the solar facility would not make it difficult to economically or conveniently farm.
Objective 2.2. Encourage the infilling of development in urban areas as an alternative to expanding urban boundaries.	Consistent	The project is located within the County's designated Renewable Energy Zone, which identifies areas that are considered appropriate for the development of renewable energy. The project consists of the construction and operation of a solar facility. While the project would introduce development in the area, it would not include residential uses that would, in turn, create a demand for other uses, such as commercial, employments centers, and supporting services.
Objective 2.3. Maintain agricultural lands in parcel size configurations that help assure that viable farming units are retained.	Consistent	The project does not involve the subdivision of the property into smaller parcels. The project is considered a temporary industrial use but would not induce growth in the area nor result in the expansion of urban boundaries. While the project would temporarily convert agricultural land to non-agricultural uses; a reclamation plan would be prepared for the project site, which, when implemented, would return the site to its pre-project conditions after the solar uses are discontinued.

Table 3.3-2. Project Consistency with Applicable General Plan Agricultural Policies

General Plan Policies	Consistency with General Plan	Analysis
Objective 2.4. Discourage the parcelization of large holdings.	Consistent	The project does not involve the subdivision of the property into smaller parcels. The size of the existing parcels would be retained for future agricultural use following site restoration.
Objective 2.6. Discourage the development of new residential or other non-agricultural areas outside of city "sphere of influence" unless designated for non-agricultural use in the County General Plan, or for necessary public facilities.	Consistent	The project is located within the County's designated Renewable Energy Zone, which identifies areas that are considered appropriate for the development of renewable energy.
Goal 3. Limit the introduction of conflicting uses into farming areas, including residential development of existing parcels which may create the potential for conflict with continued agricultural use of adjacent property.	Consistent	Upon approval of a CUP, the proposed project would be an allowable use within the applicable agricultural zone. Additionally, the project does not include the development of housing. The solar development would be compatible with existing agricultural uses to the west.
Objective 3.2. Enforce the provisions of the Imperial County Right-to-Farm Ordinance (No. 1031).	Consistent	The Imperial County Right-to-Farm Ordinance would be enforced. Existing nuisance issues, such as noise, dust, and odors from existing agricultural use would not impact the project given the general lack of associated sensitive uses (e.g., residences). Likewise, with mitigation measures proposed in other resource sections (e.g., air quality, noise, etc.) project-related activities would not adversely affect adjacent agricultural operations.
Objective 3.3. Enforce the provisions of the State nuisance law (California Code Sub-Section 3482).	Consistent	The provisions of the state nuisance law would be incorporated into the project. As discussed below, there is the potential that weeds or other pests may occur within the solar field if these areas are not properly maintained and managed to control weeds and pests. Mitigation Measure AG-1 requires the project applicant to develop a Pest Management Plan prior to the issuance of a grading permit or building permit (whichever occurs first).

Source: County of Imperial 2015
BMP – best management practice; CUP – conditional use permit; IID – Imperial Irrigation District

3.3.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to agricultural 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 agricultural resources are considered significant if any of the following occur:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use
- Conflict with existing zoning for agricultural use, or a Williamson Act contract
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use

Methodology

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description, to adversely impact agricultural resources within the project site based on the applied significance criteria as identified above. The analysis prepared for this EIR relied on Important Farmland and Williamson Act maps for Imperial County produced by the California DOC's Division of Land Resource Protection. These sources were used to determine the agricultural significance of the land in the project site. Per the County of Imperial General Plan, Farmland of Local Importance is also considered an important farmland.

Additionally, potential conflicts with existing agricultural zoning or other changes resulting from the implementation of the project, which could indirectly remove Important Farmland from agricultural production or reduce agricultural productivity were considered. Sources used in this evaluation included, but were not limited to, the Imperial County General Plan and zoning ordinance. The conceptual site plan for the project (Chapter 2, Figure 2-3) was also used to evaluate potential impacts.

Impact Analysis

Impact 3.3-1 Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use?

The project site does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Therefore, the proposed project would not convert land designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to non-agricultural uses.

According to the California DOC's California Important Farmland Finder, the majority of the project site is designated as Other Land (DOC 2021). A portion of the project site is designated as Farmland of Local Importance. It should be noted that analysis of Other Land and Farmland of Local Importance is not required under CEQA significance criteria, as these designations are not considered an "agricultural land" per CEQA Statute Section 21060.1(a). The proposed project would temporarily convert Farmland of Local Importance to non-agricultural uses. However, as a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes the removal, recycling, and/or disposal of all solar arrays, inverters, transformers, and other structures on the project site, as well as restoration of the site to its pre-project condition. The County is responsible for approving the reclamation plan for the project

and confirming that financial assurances for the project are in conformance with Imperial County ordinances prior to the issuance of any building permits. This shall be made a condition of approval and included in the CUP. Implementation of the reclamation plan would reduce the impact associated with the temporary conversion of Farmland of Local Importance to non-agricultural uses to a level less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.3-2 Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Williamson Act. The project site is not located on Williamson Act contracted land (DOC 2016). Therefore, the project would not conflict with a Williamson Act contract and no impact would occur.

Agricultural Zoning. Pursuant to the County General Plan, the project site is located on land designated for agricultural uses. The project would be constructed on land currently zoned A-3-RE (Heavy Agriculture with a Renewable Energy Zone Overlay). Pursuant to Title 9, Division 5, Chapter 9, the following uses are permitted in the A-3 zone subject to approval of a CUP from Imperial County:

> *i) Battery Storage Facility (must be connected to an existing electrical power generation plant such as solar, geothermal, wind, natural gas, or other renewable energy generator, as an accessory unit to said power plant).*
>
> *oo) Major facilities relating to the generation and transmission of electrical energy, provided 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, meeting the requirements in Division 17.*
>
> *zz) Solar energy plants meeting the requirements in Division 17.*

Upon approval of a CUP, the project's use would be consistent with the Imperial County Land Use Ordinance and thus is also consistent with the General Plan land use designation of the site. Additionally, the operation of the solar generating facility is not expected to inhibit or adversely affect adjacent agricultural operations through the placement of sensitive land uses, generation of excessive dust or shading, or place additional development pressures on adjacent areas. Based on these considerations, the impact is considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.3-3 Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

The Agricultural Element of the County's General Plan serves as the primary policy statement for implementing development policies for agricultural land use in Imperial County. The goals, objectives, implementation programs, and policies found in the Agricultural Element provide direction

for private development as well as government actions and programs. A summary of the relevant Agricultural goals and objectives and the project's consistency with applicable goals and objectives is summarized in Table 3.3-2. As provided, the project is generally consistent with certain Agricultural Element Goals and Objectives of the County General Plan.

Per County policy, agricultural land may be converted to non-agricultural uses only where a clear and immediate need can be demonstrated, such as requirements for urban housing, commercial facilities, or employment opportunities. Further, no agricultural land designated exempt shall be removed from the agriculture category except where needed for use by a public agency, for geothermal purposes, where a mapping error may have occurred, or where a clear long-term economic benefit to the County can be demonstrated through the planning and environmental review process.

As discussed under Impact 3.3-1, the project site does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Furthermore, the project site is located within the Renewable Energy Zone and is, therefore, considered an appropriate use in this area. Additionally, as a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes the removal, recycling, and/or disposal of all solar arrays, inverters, transformers, and other structures on the project site, as well as restoration of the site to its pre-project condition. The County is responsible for approving the reclamation plan for the project and confirming that financial assurances for the project are in conformance with Imperial County ordinances prior to the issuance of any building permits. This shall be made a condition of approval and included in the CUP.

The nature of the project warrants that it be located adjacent to existing electrical transmission infrastructure. The electrical energy produced by the project would be conducted through the project's interconnection facilities to the proposed 92 kV gen-tie line and delivered to the existing IID approved POI on the 92 kV "P" Line. The All-American Main Canal provides a buffer between the proposed solar facility and the existing cultivated agricultural croplands located north of the canal. With the approval of a Conditional Use Permit, the project would be consistent with the County's Land Use Ordinance. Consistency with the Land Use Ordinance implies consistency with the General Plan land use designation.

The project would not directly impact the movement of agricultural equipment on roads located within the agriculture category and access to existing agriculture-serving roads would not be precluded or hindered by the project. No modifications to roadways are proposed in the project area that would otherwise affect other agricultural operations in the area. Furthermore, existing nuisance issues, such as noise, dust, and odors from existing agricultural use would not impact the project given the general lack of associated sensitive uses (e.g., residences). Likewise, with mitigation measures proposed in other resource sections (e.g., air quality, noise, etc.) project-related activities would not adversely affect adjacent agricultural operations. Further, the provisions of the Imperial County Right-to-Farm Ordinance (No. 1031) and the State nuisance law (California Code Sub-Section 3482) would continue to be enforced.

With the implementation of the project, it is possible that the physical and chemical makeup of the soil materials within the upper soil horizon may change. For example, improper soil stockpiling and management of the stockpiles could result in increased decomposition of soil organic materials, increased leaching of plant available nitrogen, and depletion of soil biota communities (e.g., Rhizobium or Frankia). Any reductions in agricultural productivity could significantly limit the types of

crops (e.g., deeper rooting crops, orchards, etc.) that may be grown within the project site in the future. However, as a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes restoration of the site to its pre-project condition.

Additionally, there is the potential that weeds or other pests may occur within the solar field if the area is not properly maintained and managed to control weeds and pests. This is considered a significant impact. Implementation of Mitigation Measure AG-1 would reduce this impact to a level less than significant.

Mitigation Measure(s)

AG-1 **Pest Management Plan.** Prior to the issuance of a grading permit or building permit (whichever occurs first), a Pest Management Plan shall be developed by the project applicant and approved by the County of Imperial Agricultural Commissioner. The project applicant shall maintain a Pest Management Plan until reclamation is complete. The plan shall provide the following:

1. Monitoring, preventative, and management strategies for weed and pest control during construction activities at any portion of the project (e.g., transmission line);
2. Control and management of weeds and pests in areas temporarily disturbed during construction where native seed will aid in site revegetation as follows:
    - Monitor for all pests including insects, vertebrates, weeds, and pathogens. Promptly control or eradicate pests when found, or when notified by the Agricultural Commissioner's office that a pest problem is present on the project site. The assistance of a licensed pest control advisor is recommended. All treatments must be performed by a qualified applicator or a licensed pest control business;
    - All treatments must be performed by a qualified applicator or a licensed pest control operator;
    - "Control" means to reduce the population of common pests below economically damaging levels, and includes attempts to exclude pests before infestation, and effective control methods after infestation. Effective control methods may include physical/mechanical removal, bio control, cultural control, or chemical treatments;
    - Use of "permanent" soil sterilants to control weeds or other pests is prohibited because this would interfere with reclamation;
    - Notify the Agricultural Commissioner's office immediately regarding any suspected exotic/invasive pest species as defined by the California Department of Food Agriculture and the U.S. Department of Agriculture. Request a sample be taken by the Agricultural Commissioner's Office of a suspected invasive species. Eradication of exotic pests shall be done under the direction of the Agricultural Commissioner's Office and/or California Department of Food and Agriculture;
    - Obey all pesticide use laws, regulations, and permit conditions;

- Allow access by Agricultural Commissioner staff for routine visual and trap pest surveys, compliance inspections, eradication of exotic pests, and other official duties;
- Ensure all project employees that handle pest control issues are appropriately trained and certified, all required records are maintained and made available for inspection, and all required permits and other required legal documents are current;
- Maintain records of pests found and treatments or pest management methods used. Records should include the date, location/block, project name (current and previous if changed), and methods used. For pesticides include the chemical(s) used, EPA Registration numbers, application rates, etc. A pesticide use report may be used for this;
- Submit a report of monitoring, pest finds, and treatments, or other pest management methods to the Agricultural Commissioner quarterly within 15 days after the end of the previous quarter, and upon request. The report is required even if no pests were found or treatment occurred. It may consist of a copy of all records for the previous quarter or may be a summary letter/ report as long as the original detailed records are available upon request.

3. A long-term strategy for weed and pest control and management during the operation of the proposed project. Such strategies may include, but are not limited to:
    - Use of specific types of herbicides and pesticides on a scheduled basis.
4. Maintenance and management of project site conditions to reduce the potential for a significant increase in pest-related nuisance conditions on surrounding agricultural lands.
5. The project shall reimburse the Agricultural Commissioner's office for the actual cost of investigations, inspections, or other required non-routine responses to the site that are not funded by other sources.

Significance after Mitigation

The project applicant would be required to adhere to the terms of the comprehensive reclamation plan that would restore the project site to preexisting (pre-project) conditions following decommissioning of the project (after their use for solar generation activities). In addition, the proposed project would be required to implement a weed and pest management control plan per Mitigation Measure AG-1. Compliance with these measures would reduce this impact to a level less than significant.

3.3.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

In any land restoration project, it is necessary to minimize disruption to topsoil or stockpiled topsoil for later use during restoration following project decommissioning. With the implementation of the project, it is possible that the physical and chemical makeup of the soil materials within the upper soil

horizon may change during construction and associated stockpiling operations. Improper soil stockpiling and management of the stockpiles could result in increased decomposition of soil organic materials, increased leaching of plant-available nitrogen, and depletion of soil biota communities (e.g., Rhizobium or Frankia). Each of these circumstances could have an adverse effect on the future productivity of the restored soils. Any reductions in agricultural productivity could significantly limit the types of crops (e.g., deeper rooting crops, orchards, etc.) that may be grown within the project site in the future. As a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes restoration of the site to its pre-project condition. With implementation of the site reclamation plan, this impact is considered less than significant.

Residual

The project site does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Therefore, the proposed project would not convert land designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to non-agricultural uses. Operation of the project, subject to the approval of a CUP, would generally be consistent with applicable federal, state, regional, and local plans and policies. Following the proposed use (e.g., solar facility), the project would be decommissioned and the project site would be restored to pre-project conditions. Based on these circumstances, the project would not result in any residual significant and unmitigable impacts to agricultural resources.

3.4 Air Quality

This section includes an overview of the existing air quality within the project area and identifies applicable local, state, and federal policies related to air quality. The impact assessment 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. ECORP Consulting, Inc. prepared an *Air Quality and Greenhouse Gas Assessment* that evaluates the potential air quality and climate change impacts of the VEGA SES 4 Solar Energy Project. This report is included in Appendix C of this EIR.

3.4.1 Existing Conditions

Regional Setting

The 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. The ICAPCD has full jurisdiction within all Imperial County. As an arid desert region, the SSAB's climate is largely governed by the large-scale sinking and warming of air within the semi-permanent subtropical high-pressure center over the Pacific Ocean. When the fringes of mid-latitude storms pass through the Imperial Valley in winter, the coastal mountains create a strong "rain shadow" effect that makes Imperial Valley the second driest location in the U.S.

The lack of clouds and atmospheric moisture creates strong diurnal and seasonal temperature variations ranging from an average summer maximum of 108 degrees (°) Fahrenheit down to a winter morning minimum of 38° Fahrenheit. 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 significant rainfall an average of only four times per year. 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 C of this EIR). Temperature inversions and light nighttime winds trap any local air pollution emissions near the ground. As a result, the area is subject to frequent hazy conditions at sunrise, followed by rapid daytime dissipation as winds pick up and the temperature warms. During periods of strong solar heating and intense convection, turbulent motion creates good mixing and low levels of air pollution. The SSAB experiences surface inversions almost every day of the year. These inversions often last for long periods of time, which allows for air stagnation and buildup of pollutants, including ozone (O_3).

Winds in the area are driven by a complex pattern of local, regional, and global forces, but primarily reflect the temperature difference between the cool ocean to the west and the heated interior of the entire desert southwest. For much of the year, winds flow predominantly from the west to the east. In summer, intense solar heating in the Imperial Valley creates a more localized wind pattern, as air comes up from the southeast via the Gulf of California.

Imperial County is predominately agricultural land, which is a factor in the cumulative air quality of the SSAB. Agricultural production generates dust and small particulate matter through the use of agricultural equipment on unpaved roads, land preparation, and harvest practices. Imperial County experiences unhealthful air quality from photochemical smog and from dust because of extensive surface disturbance and the very arid climate (Appendix C of this EIR).

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 (PM_{10}), 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 (NO_2), and sulfur dioxide (SO_2) 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 3.4-1.

Table 3.4-1. 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.
O_3	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N_2O) 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, wood-burning 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 C of this EIR

Toxic Air Contaminants

Toxic air contaminants (TAC) are substances that have the potential to be emitted into the ambient air and that have been determined to present some level of acute or chronic health risk (cancer or non-cancer) to the general public. These pollutants may be emitted in trace amounts from various types of sources, including combustion sources. There are almost 200 compounds that have been designated as TACs in California. The 10 TACs posing the greatest known health risk in California, based primarily

on ambient air quality data, are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, formaldehyde, methylene chloride, para-dichlorobenzene, perchloroethylene, and diesel particulate matter (DPM).

Most recently, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung (Appendix C of this EIR).

Attainment Status

The U.S. Environmental Protection Agency (EPA) and California Air Resources Board (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 O_3, PM_{10} 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 O_3, PM_{10}, 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.

The attainment status for the portion of the SSAB encompassing the project site is shown in Table 3.4-2. As shown, the Imperial County portion of the SSAB is currently designated as nonattainment for O_3 and PM_{10} under State standards. Under federal standards, the Imperial County portion of the SSAB is in nonattainment for $O_3$and $PM_{2.5}$ and is in attainment for PM_{10}. The area is currently in attainment or unclassified status for CO, NO_2, and SO_2.

Table 3.4-2. 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	Attainment
$PM_{2.5}$	Attainment	Nonattainment
CO	Attainment	Unclassified/attainment
NO_2	Attainment	Unclassified/attainment
SO_2	Attainment	Unclassified/attainment

Source: Appendix C of this EIR

Local Ambient Air Quality

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. Ozone, PM_{10} and $PM_{2.5}$ are the pollutants most potently affecting the project region. As described above, the project region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the State standards for O_3 and PM_{10}. The Niland-English Road air quality monitoring station (7711 English Road, Niland), located approximately 23.0 miles northwest of the project site, monitors ambient concentrations of O_3 and PM_{10}. The Brawley-Main Street #2 air quality monitoring station (220 Main Street, Brawley), located 15.0 miles west of the project site, monitors ambient concentrations of $PM_{2.5}$. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the project area. Table 3.4-3 summarizes the published data concerning O_3, $PM_{2.5}$ and PM_{10} from the Niland-English Road and Brawley-Main Street #2 monitoring stations for monitoring years 2018-2020. As shown in Table 3.4-3, O_3, PM_{10} and $PM_{2.5}$ are the pollutants most potently affecting the project region.

Table 3.4-3. Summary of Local Ambient Air Quality Data

Pollutant Standards	2018	2019	2020
O_3 – Niland-English Road			
Max 1-hour concentration (ppm)	0.060	0,060	0.054
Max 8-hour concentration (ppm) (state/federal)	0.055 / 0.055	0.055 / 0.054	0.046 / 0.045
Number of days above 1-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
Number of days above 8-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
PM_{10} – Niland-English Road			
Max 24-hour concentration (µg/m3) (state/federal)	333.8 / 331.5	156.3 / 155.7	241.3 / 239.8
Number of days above 24-hour standard (state/federal)	* / 10.1	49.3 / 1.0	68.9 / 1.0
$PM_{2.5}$ – Brawley-Main Street			
Max 24-hour concentration (µg/m3) (state/federal)	55.1 / 55.1	28.9 / 28.9	23.7 / 23.7
Number of days above federal 24-hour standard	6.1	0	0

Source: Appendix C of this EIR
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.

The project site is in a generally rural area and surrounded by relatively undisturbed desert lands. The nearest sensitive receptor to the project site is a single-family residence located approximately 0.5 miles from the northeastern corner of the project site.

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

Clean Air Act

The Federal Clean Air Act (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, NO_2, SO_2, Pb, and PM (Including both PM_{10}, and $PM_{2.5}$) are the six criteria air pollutants. Ozone is a secondary pollutant, nitrogen oxides (NO_x) and volatile organic compounds (VOCs) 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 3.4-4.

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 3.4-4, 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 State Implementation Plan (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 3.4-4. 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 12.0 µg/m^3
CO	1-hour 8-hour	20 ppm 9.0 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 per kilometer, visibility of 10 miles or more because of particles when relative humidity is less than 70 percent	

Source: CARB 2016

CO – carbon monoxide; mean – annual arithmetic mean; NO_2 – nitrogen dioxide; O_3 – ozone; Pb – lead; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; PM_{10} - particulate matter less than 10 microns in diameter; ppb – parts per billion; ppm - parts per million; $S0_2$ – sulfur dioxide; µg/m^3 – 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, ARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, ARB 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 PM_{10} (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 Assembly Bill (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 Senate Bill (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 PM_{10}

- 2013 Imperial County Plan for 2006 24-hour $PM_{2.5}$ for Moderate Nonattainment Area
- 2017 Imperial County Plan for 2008 8-hour Ozone Standard
- 2018 Imperial County Plan for PM_{10}
- 2018 Redesignation Request and Maintenance Plan for PM_{10}
- 2018 Imperial County Plan for $PM_{2.5}$

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 general 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 PM_{10} and O_3.

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 Chart[1] 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 PM_{10} 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 PM_{10} 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.

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

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

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

As a solar generation facility, the proposed project would improve air quality by reducing the use of fossil fuels in energy production. Construction of the proposed project would not exceed any ICAPCD thresholds or result in significant impacts to air quality. Although no significant air quality impact would occur during construction, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. PM_{10} emissions associated with construction of the project would be reduced through compliance with ICAPCD Regulation VIII. Operation of the proposed project would not exceed any ICAPCD thresholds or result in significant impacts to air quality. Therefore, the proposed project would be consistent with this SCAG goal.

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 3.4-5 summarizes the 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 3.4-5. Project Consistency with Applicable Plan Policies

Applicable Policies	Consistency Determination	Analysis
Conservation and Open Space Element		
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 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 fossil fuel burning facilities. Therefore, the proposed project is consistent with this goal.

Table 3.4-5. Project Consistency with Applicable Plan Policies

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 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 project would comply with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-1). Therefore, the proposed 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, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-1). Therefore, the proposed project is consistent with this objective.

Source: County of Imperial 2016

3.4.3 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 O_3 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 project.

Significance thresholds for evaluation construction and operational air quality impacts are listed in Table 3.4-6.

Projects that are predicted to exceed Tier I thresholds require implementation of applicable ICAPCD standard mitigation measures to be considered less than significant. Projects exceeding Tier II

thresholds are required to implement applicable ICAPCD standard mitigation measures, as well as applicable discretionary mitigation measures. Projects that exceed the Tier II thresholds after implementation of standard and discretionary mitigation measures would be considered to have a potentially significant impact to human health and welfare.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

Table 3.4-6. Imperial County Air Pollution Control District Significance Thresholds – Pounds per Day

Criteria Pollutant and Precursors	Construction Activities	Tier 2 Thresholds	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	
		Tier I Threshold	Tier II Threshold
ROG	75	<137	>137
NO_x	100	<137	>137
PM_{10}	150	<150	>150
$PM_{2.5}$	N/A	<550	>550
CO	550	<550	>550
SO_2	N/A	<150	>150

Source: ICAPCD 2017b

CO – carbon monoxide; NO_x – nitrogen oxide; O_3 – ozone; Pb – lead; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; PM_{10} - particulate matter less than 10 microns in diameter; ROG - reactive organic gas; S0x – sulfur oxide

Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the ICAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. 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. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Imperial County coupled with information provided by the project applicant. For instance, 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. Construction is estimated to take 12-18 months and would begin in late 2022 or 2023. The number of on-site construction workers for the solar facility is not expected to exceed 150 workers at any time. The number of on-site construction workers for the BESS and substation is not expected to exceed 100 workers at any one time. According to the Traffic Study prepared for the project, project construction would generate a maximum of 500 construction worker-commute trips in a single day.

Construction workers would utilize an existing driveway off State Route 98 and then park their vehicles in a designated staging/parking area, approximately 3.5 acres in size, north of the All-American Canal. The staging/parking area is proposed to be improved to facilitate access and minimize parking conflicts. Construction workers would then walk across the All-American Canal at an existing crossing east of the project site. No vehicles or construction vehicles are allowed to travel across this existing crossing. Designated shuttles would pick up the construction workers at the south end of the crossing, and then travel west for approximately one mile along an existing dirt road to the project site. The Traffic Impact Study prepared for the project identifies the site trip distribution of construction worker commute traffic. It is noted that all of the roadways identified as construction worker commute routes are paved. Thus, the PM emissions associated with construction workers traversing 1.15 miles of unpaved roads are accounted (0.15 mile of roadway at staging/parking area and 1.0 mile of dirt road south of the All-American Canal).

All heavy-duty construction vehicles would cross the All-American Canal at Gordon Wells Road located approximately 20 miles east of the project site. An estimated two trucks hauling construction equipment and project materials would arrive at the project site each day during the first few weeks of construction via Gordon Wells Road and the 20 miles of existing dirt road paralleling the U.S./Mexico Border. The PM emissions associated with two haul trucks traversing this existing dirt road to and from the site daily are accounted for.

Operational air pollutant emissions account for the maximum three workers visiting the site in a single day. Such visits 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. Therefore, operational onsite equipment use is accounted in addition to the consumption of 10 acre-feet (3,259,000 gallons) of water annually.

Impact Analysis

Impact 3.4-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

The air quality attainment plan (AQAP) for the SSAB, through the implementation of the AQMP (previously AQAP) and SIP for PM_{10}, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario 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 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 the project would contribute to energy supply, which is one factor of population growth, the proposed project is a solar energy project and 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 Renewable Portfolio Standard (RPS).

As shown in Table 3.4-5, the project is consistent with the applicable air quality goal and objectives from the Conservation and Open Space Element of 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 thresholds presented in Table 3.4-6 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, grading, and commuting on any exposed surfaces. The project site would be accessed via the following:

- **Worker Access:** Workers would utilize an existing driveway off State Route 98. Workers would cross the All-American Canal at an existing crossing east of the project site and then travel west for approximately one mile along an existing dirt road.
- **Heavy Construction Equipment Access:** Vendors and heavy construction equipment would exit south from Interstate 8 onto Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing dirt road paralleling the U.S./Mexico Border.

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.

The proposed project is anticipated to take approximately 12-18 months from the commencement of the construction process to complete. Construction is anticipated to begin in late 2022 and/or 2023. 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. The construction emissions 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.

The total emissions generated within each year of project construction are shown in Table 3.4-7.

Table 3.4-7. Project Construction-Generated Emissions – Unmitigated

Construction Year	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in Calendar Year One	5.66	57.65	53.83	0.10	949.93	96.64
Construction in Calendar Year Two	5.18	30.12	52.46	0.09	949.82	96.54
ICAPCD Significance Threshold	75	100	550	—	150	—
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**Yes**	**No**

Source: Appendix C of this EIR
Notes: Pounds per day taken from the season with the highest output.

As shown in Table 3.4-7, the project's daily construction emissions would not exceed the ICAPCD thresholds for ROG, NOx, CO, SO_2, and $PM_{2.5}$. However, the project would exceed the ICAPCD threshold for $PM_{10.}$ 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. A predominate source of project PM_{10} emissions is workers commuting to and from the project site on unpaved roads (worker access and heavy construction equipment access routes described above). 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. Table 3.4-8 shows the project's emissions with implementation of the Regulation VIII fugitive dust control measures (Mitigation Measure AQ-1). With implementation of Mitigation Measure AQ-1, the project would not exceed the ICAPCD's thresholds of significance for PM_{10} emissions.

Table 3.4-8. Project Construction-Generated Emissions – Mitigated

Construction Year	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in Calendar Year One	5.66	57.61	53.83	0.10	91.86	11.00
Construction in Calendar Year Two	5.18	30.03	52.46	0.09	91.75	10.90
ICAPCD Significance Threshold	75	100	550	—	150	—
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C of this EIR

In addition, as described in Mitigation Measure AQ-2, 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 the project site 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.

Operational Emissions. The proposed project requires minimal operations and maintenance activities conducted by two to three employees. 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 identified in Table 3.4-9 and compared to the operational significance thresholds promulgated by the ICAPCD.

Table 3.4-9. Project Operational Emissions

Emission Source	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Area	13.59	0.00	0.06	0.00	0.00	0.00
Energy	0.26	2.42	2.03	0.01	0.18	0.18
Mobile	0.02	0.03	0.31	0.00	4.84	0.49
Offroad Equipment	1.16	11.09	12.70	0.02	0.56	0.51
Total	**15.04**	**13.55**	**15.11**	**0.03**	**5.59**	**1.19**
ICAPCD Significance Threshold	137	137	150	550	550	150
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	13.59	0.00	0.06	0.00	0.00	0.00
Energy	0.26	2.42	2.03	0.01	0.18	0.18
Mobile	0.02	0.03	0.24	0.00	4.84	0.49
Offroad Equipment	1.16	11.09	12.70	0.02	0.56	0.51
Total	**15.04**	**13.55**	**15.04**	**0.03**	**5.59**	**1.19**
ICAPCD Significance Threshold	137	137	150	550	550	150
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C of this EIR

As shown in Table 3.4-9, the project's operational emissions would not exceed the ICAPCD thresholds for CO, ROG, NOx, PM_{10} and $PM_{2.5}$. 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-1, AQ-3, and AQ-4 would ensure that a Dust Suppression Management Plan is implemented, thereby ensuring that this potential impact would remain less than significant.

As a solar generation facility, the proposed project would improve air quality by reducing the use of fossil fuels in energy production. The energy produced by the project would displace the criteria pollutant emissions which would otherwise be produced by existing business-as-usual power generation resources (including natural gas and coal). Table 3.4-10 shows the emissions that would potentially be displaced by the proposed project. Displacement of fossil fuel emissions has a direct beneficial effect on human health for those receptors downwind of the location of the fossil fuel power plants. As shown, the project would potentially displace approximately 483 tons of NO_x, 37 tons of CO, 64 tons of SO_2, 64 tons of PM_{10}, and 27 tons of $PM_{2.5}$ over the course of 30 years.

Table 3.4-10. Proposed Project Displaced Criteria Pollutant Emissions (Tons)

Source of Displaced Emissions	Emissions (tons)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Emissions Displaced Annually (tons)						
Displaced Natural Gas-Source Emissions	0	2.14	0.65	1.47	2.03	0.82
Displaced Coal-Source Emissions	0	13.97	0.58	0.66	0.10	0.07
Total	0	16.11	1.23	2.13	2.13	0.89
Emissions Displaced over 30 Years (tons)						
Total	0	483.37	36.93	64.03	63.93	26.75

Source: Appendix C of this EIR

Note: 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) (See Appendix C for details).

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 (with implementation of Mitigation Measure AQ-1) and operation, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Furthermore, the project would also have a direct beneficial effect on human health by displacing criteria pollutants. Impacts would be less than significant impact with mitigation incorporated.

Mitigation Measure(s)

AQ-1 **Fugitive Dust Control.** During construction activities, the constructor contractor shall employ the following PM_{10} reducing measures:

1. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using Imperial County Air Pollution Control District-approved chemical stabilizers/suppressant before the commencement of construction, and every 30 days thereafter until the end of all construction activities. Unpaved roads associated with construction include:
    - The driveway entrance off State Route 98,

- The project designated 3.5-acre staging/parking area north of the All-American Canal,
- The 1.0 mile of dirt road south of the All-American Canal,
- The 20 miles of existing dirt road paralleling the U.S./Mexico Border from Gordon Wells Road to the project site.

Monthly application of Imperial County Air Pollution Control District-approved chemical stabilizers/suppressant shall be applied at a rate of 0.1 gallon/ square yard of chemical dust suppressant.

2. Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain Imperial County Air Pollution Control District and Imperial County Planning and Development Services Department (ICPDS) approval.
3. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. Whereas these Regulation VIII measures are mandatory and are not considered project environmental mitigation measures, the ICAPCD CEQA Handbook's required additional standard and enhanced mitigation measures listed below shall be implemented prior to and during construction. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process.

ICAPCD Standard Measures for Fugitive Dust (PM_{10}) 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 off-site 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.

ICAPCD "Discretionary" Measures for Fugitive Dust (PM_{10}) Control

- Water exposed soil only in those areas where active grading and vehicle movement occurs with adequate frequency to control dust.
- Replace ground cover in disturbed areas as quickly as possible.
- Automatic sprinkler system installed on all soil piles.
- Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site.
- Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees.
- Implement a shuttle service to and from retail services and food establishments during lunch hours.

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.
- Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Enhanced Mitigation Measures for Construction Equipment

To help provide a greater degree of reduction of PM emissions from construction combustion equipment, ICAPCD recommends the following enhanced measures.

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways.
- Implement activity management (e.g., rescheduling activities to reduce short-term impacts).

AQ-2 **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 the project site 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-3 **Dust Suppression.** The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. 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-4 **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.

Significance After Mitigation

With implementation of the Regulation VIII fugitive dust control measures (Mitigation Measure AQ-1), the project would not exceed the ICAPCD's thresholds of significance for PM_{10} emissions. Mitigation Measures AQ-2 through AQ-4 would provide additional reduction strategies to further improve air quality and reductions in criteria pollutants (O_3 precursors) 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 3.4-2 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 O_3 precursors)?

As shown in Table 3.4-2, the criteria pollutants for which the project area is in State non-attainment under applicable air quality standards are O_3 and PM_{10}. 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 3.4-1, the project's daily construction emissions would not exceed the ICAPCD thresholds for ROG, NOx, CO, SO_2, and $PM_{2.5.}$ However, the project would exceed the ICAPCD threshold for $PM_{10.}$ To mitigate the potential impacts associated with construction-generated emissions with regard to $PM_{10,}$ the project would adhere to the requirements of ICAPCD Regulation VIII for the control of fugitive dust. As shown in Table 3.4-8, the project's emissions with implementation of the Regulation VIII fugitive dust control measures, the project would not exceed the ICAPCD's threshold of significance for PM_{10} emissions. Furthermore, implementation of Mitigation Measures AQ-1 through AQ-5 will ensure compliance with ICAPCD rules and regulations and applicable air quality plan control measures. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.4-3 Would the project expose sensitive receptors to substantial pollutant concentrations?

The project site is in a generally rural area and surrounded by undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities to the west and east, the All-American Canal running southwest on the northern border of the project site, and the U.S./Mexico international border to the south. The nearest sensitive receptor to the project site is a single-family residence located to the northeast, approximately 0.5 miles from the northeastern corner of the project site.

Construction-Generated Air Contaminants. Construction of the project would result in temporary, short-term project-generated emissions of DPM, ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment; soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SSAB which encompasses the project area is designated as a nonattainment area for federal O_3, $PM_{2.5}$ and PM_{10} standards and is also a nonattainment area for the state standards for O_3 and PM_{10}. Thus, existing O_3 and PM_{10} levels in the SSAB are at unhealthy levels during certain periods. However, as shown in Table 3.4-7, the project would exceed the ICAPCD's significance threshold for PM_{10}. As previously described above, with implementation of the Regulation VIII fugitive dust control measures (Mitigation Measure AQ-1), the project would not exceed the ICAPCD's thresholds of significance for PM_{10} emissions. The health effects associated with O_3 are generally associated with reduced lung function. Because the project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the ICAPCD thresholds, the project is not anticipated to substantially contribute to regional O_3 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 project would not involve activities that would result in CO emissions in excess of the ICAPCD thresholds. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter 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-type activity, DPM is the primary TAC of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. Most PM_{10} exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. As with O_3 and NO_x, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the ICAPCD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

Operational Air Contaminants. Operation of the proposed 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 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 project would be routine maintenance work, water deliveries, and site security as well as panel upkeep and cleaning. Therefore, the project would not be a substantial source of TACs. The proposed project would not result in a high carcinogenic or non-carcinogenic risk during operation.

CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration in the SSAB is designated as an attainment area. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

The proposed project is anticipated to result in no more than 6 daily traffic trips. It is noted that this is a conservative estimate, and many days will have no operational related vehicle trips. Thus, the proposed 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, project construction and operations 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. Additionally, given that the nearest sensitive receptor is approximately 0.5 miles from the northeastern corner of the project site, implementation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.4-4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

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 farm is not an odor producer.

During construction, the proposed project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the project area. Therefore, odors generated during project construction would not adversely affect a substantial number of people to odor emissions. No impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

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. Similar to construction activities, decommissioning and restoration of the project site would generate air emissions. A summary of the daily construction emissions for the project is provided in Table 3.4-7. 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 project site. However, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. In addition, the ICAPCD's Air Quality Handbook lists additional feasible mitigation measures that may be warranted to control emissions of fugitive dust and combustion exhaust. Mitigation Measures AQ-1 through AQ-4 would provide additional reduction strategies to further improve air quality. Therefore, a less than significant impact is identified during decommissioning and site restoration of the project site.

Residual

The proposed project's daily construction emissions would not exceed the ICAPCD's thresholds for ROG, NOx, CO, SO_2, and $PM_{2.5}$. However, the project would exceed the ICAPCD's threshold for $PM_{10.}$ To mitigate the potential impacts associated with construction-generated emissions with regard to $PM_{10,}$ the project would adhere to the requirements of ICAPCD Regulation VIII for the control of fugitive dust (Mitigation Measure AQ-1). Thus, the proposed project would not result in short-term significant air quality impacts during construction. Furthermore, implementation of Mitigation Measure AQ-2 would ensure construction equipment will be equipped with an engine designation of EPA Tier 2 or better (Tier 2+). ICAPCD will utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds. Operation of the project, subject to the approval of a CUP, would be consistent with applicable federal, state, regional, and local plans and policies. Implementation of Mitigation Measures AQ-1, AQ-3, and AQ-4 would ensure that fugitive dust emissions would be reduced during construction and operations. The project would not result in any residual operational significant and unavoidable impacts with regards to air quality.

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3.5 Biological Resources

This section identifies the biological resources that may be impacted by the proposed project. The following identifies the existing biological resources on the project site, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project.

The existing biological resources information for this section is summarized from the following technical reports:

- *Biological Resources Technical Report* (BRTR) prepared by ECORP Consulting Inc. *(*Appendix D of this EIR)
- *Aquatic Resources Delineation Report* prepared by ECORP Consulting Inc. (Appendix E of this EIR)

As part of the *Biological Resources Technical Report*, ECORP Consulting Inc. conducted a literature review, small unmanned aircraft system survey, and biological reconnaissance survey of the 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 project on biological resources.

For the purposes of this EIR, the term biological study area (BSA) refers to the project footprint, a 500-foot buffer, and areas subject to temporary impacts.

The *Aquatic Resources Delineation Report* identifies the aquatic resources occurring within the project site that may be regulated by the Porter-Cologne Water Quality Act, California Fish and Game Code Sections 1600 and 1602, and the U.S. Army Corps of Engineers (USACE) pursuant to Sections 401 and 404 of the federal Clean Water Act (CWA).

3.5.1 Existing Conditions

The project site consists of undeveloped land that appears to have been historically altered for agricultural purposes. Specifically, the disturbed nature of the site, including flora composition, old agricultural foundations, and farming equipment including a center-pivot irrigation system, indicates that portions of the land may have been historically used for agricultural production. The eastern portion of the site consists primarily of creosote bush scrub with bordering riparian scrub and wetland habitats to the northern edge and western section. The project site is surrounded to the north and southwest by agricultural fields, and undeveloped land to the east and southeast. The All-American Canal is just north of the site and the U.S./Mexico border is located just south of the site.

Vegetation Communities and Land Cover Types

The majority of vegetation communities and land cover types mapped within the BSA consists of creosote bush – white bursage scrub (disturbed), disturbed land, and tamarisk thickets. Vegetation communities and land cover types within the BSA are depicted on Figure 3.5-1 through Figure 3.5-9 and summarized in Table 3.5-1.

Table 3.5-1. Vegetation Communities or Land Cover Types within the BSA

Vegetation Community or Land Cover Type	Acres within BSA[a]
Arrow Weed Thickets (disturbed)	10.41
Creosote Bush Scrub	9.45
Creosote Bush – White Bursage Scrub (disturbed)	181.56
Disturbed	159.73
Tamarisk Thickets	66.28
Urban/Developed	0.75
Urban/Developed Roads	73.37
Total	**501.55**

Source: Appendix D of this EIR

[a] Vegetation and land cover type acreages are rounded to the nearest hundredth acre.

Disturbed Arrow Weed Thickets (Disturbed Pluchea sericea Shrubland Alliance)

Disturbed arrow weed thickets are arrow weed thickets that has been previously altered. On the project site, this vegetation cover is characterized as sparser. Other plant species observed included alkali goldenbush (*Isocoma acradenia*).

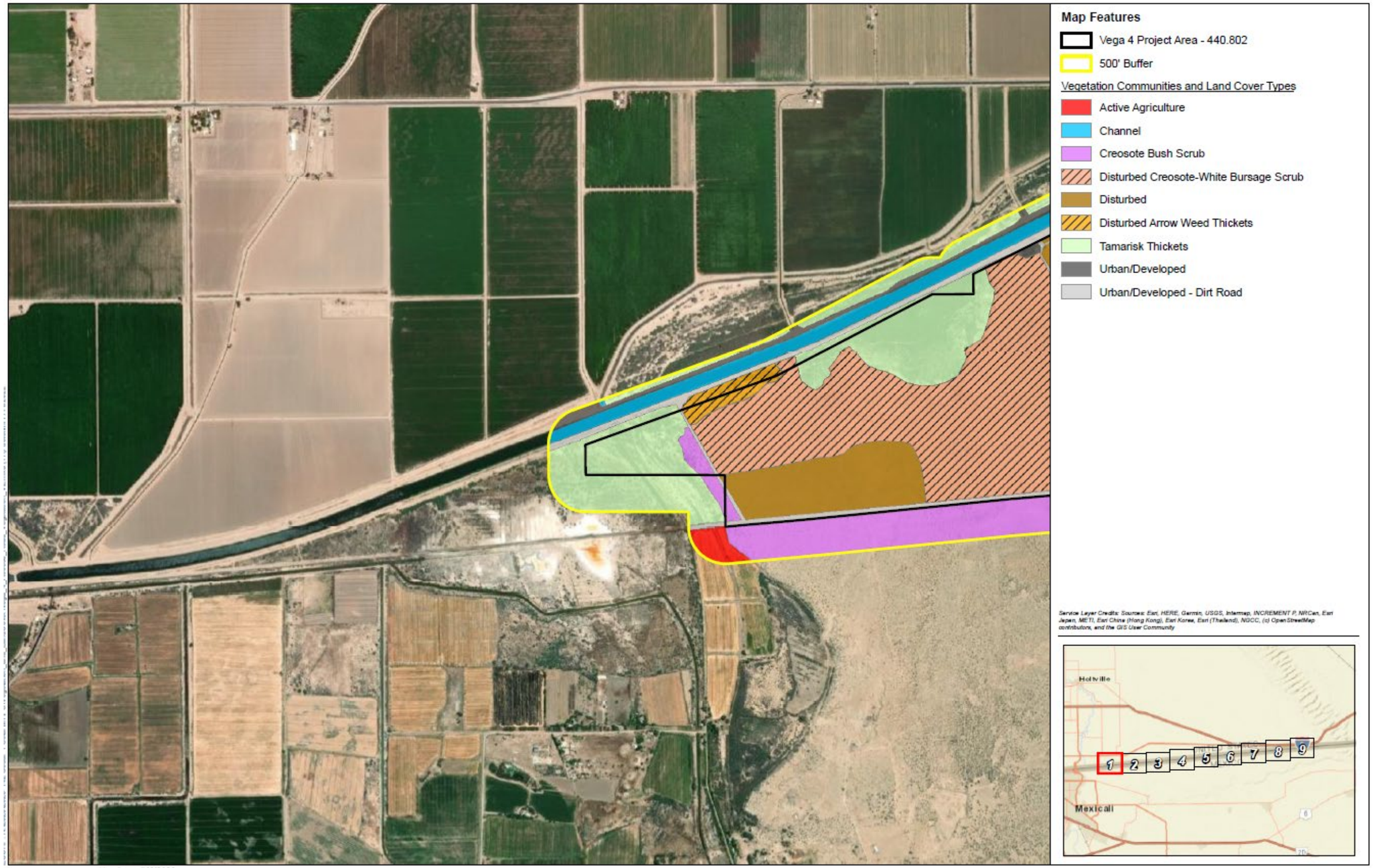
Creosote Bush Scrub (Larrea tridentata Shrubland Alliance)

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. Other species that occurred on the project site included burrowbush (*Ambrosia dumosa*), apricot mallow (*Sphaeralcea ambigua*), and fanleaf crinklemat (*Tiquilia plicata*).

Disturbed Creosote Bush – White Bursage Scrub (Disturbed Larrea tridentata – Ambrosia dumosa Shrubland Alliance)

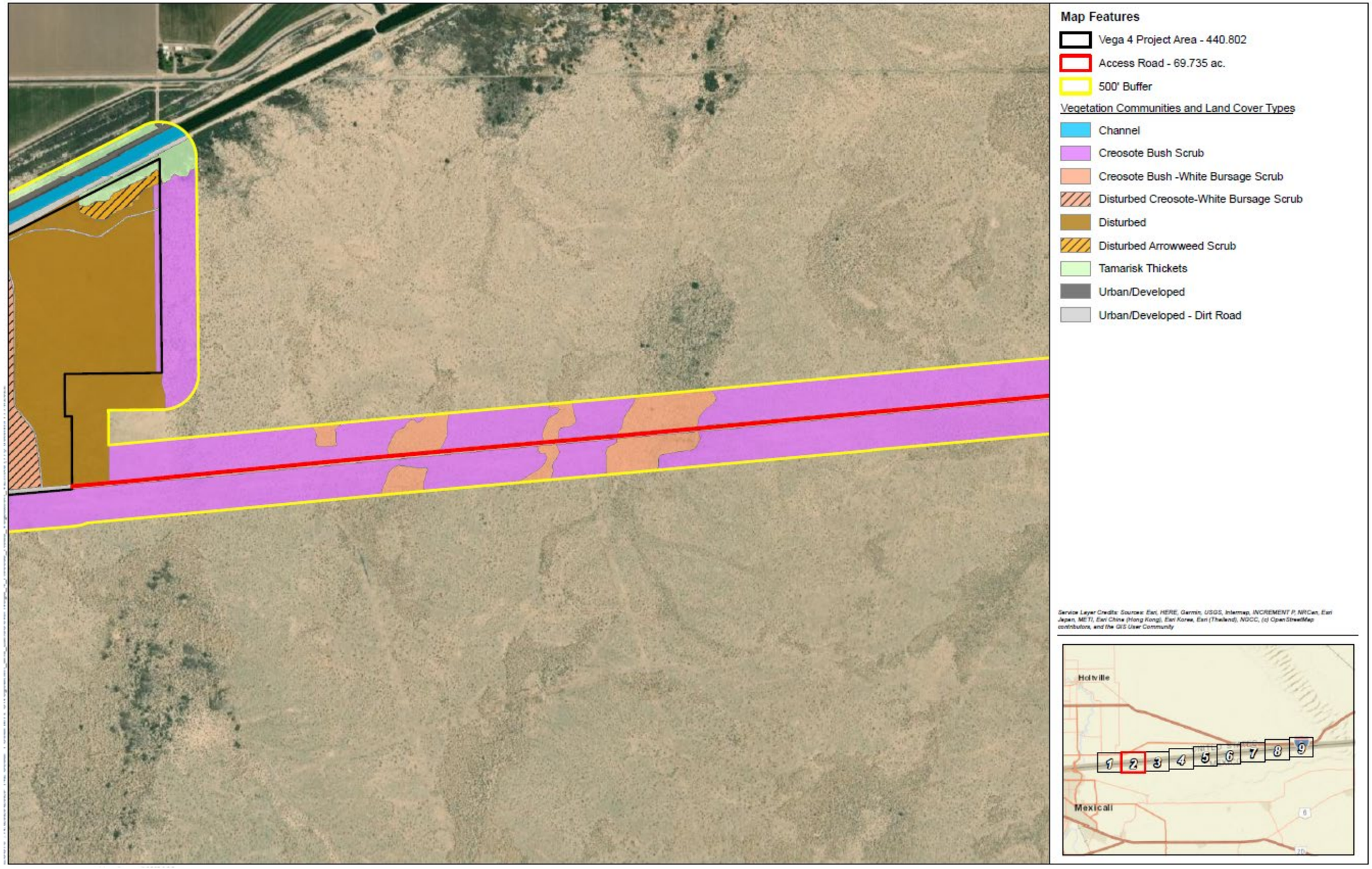
Disturbed creosote bush (i.e., white bursage scrub and white bursage scrub that has been previously altered) are co-dominant in the shrub canopy with an absent to intermittent herbaceous layer of seasonal annuals. On the project site, this vegetation cover is characterized as sparser with a high percentage of non-native plant species including common Mediterranean grass (*Schismus barbatus*) and Saharan mustard (*Brassica tournefortii*). Other plant species include dyebush (*Psorothamnus emoryi*) and crinklemat.

Figure 3.5-1. Vegetation Communities and Land Cover Types in the BSA (Sheet 1 of 9)



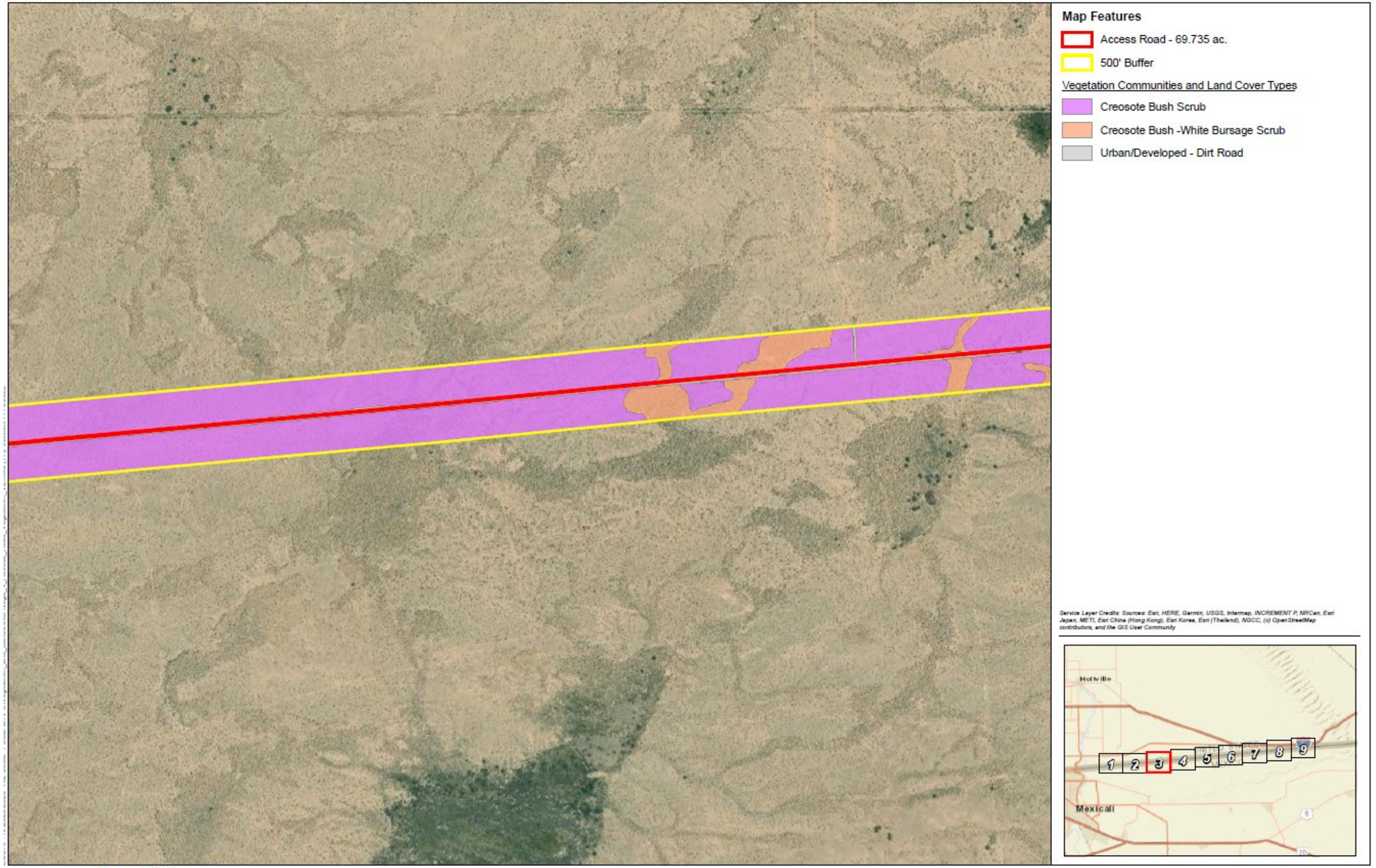
Source: Appendix D of this EIR

Figure 3.5-2. Vegetation Communities and Land Cover Types in the BSA (Sheet 2 of 9)



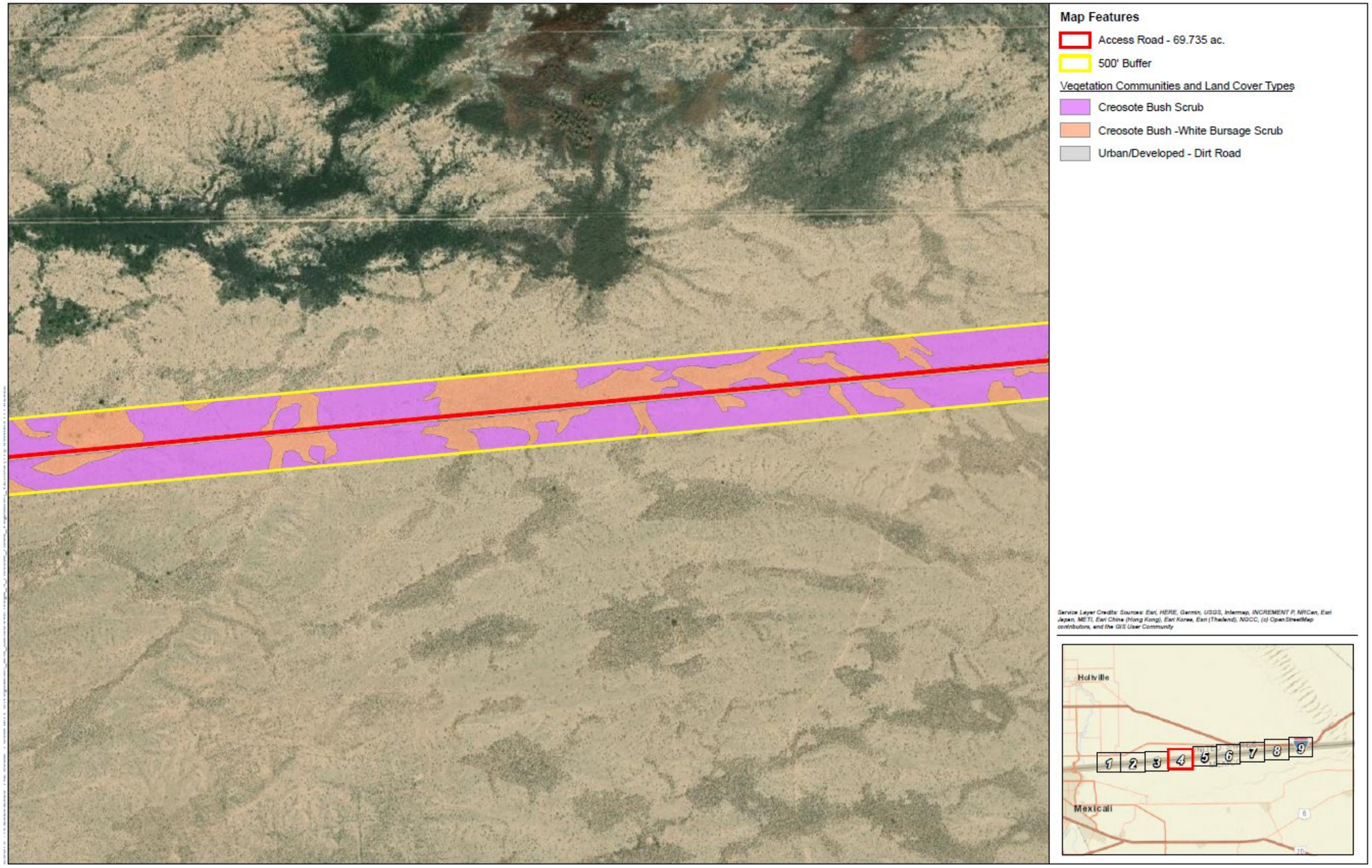
Source: Appendix D of this EIR

Figure 3.5-3. Vegetation Communities and Land Cover Types in the BSA (Sheet 3 of 9)



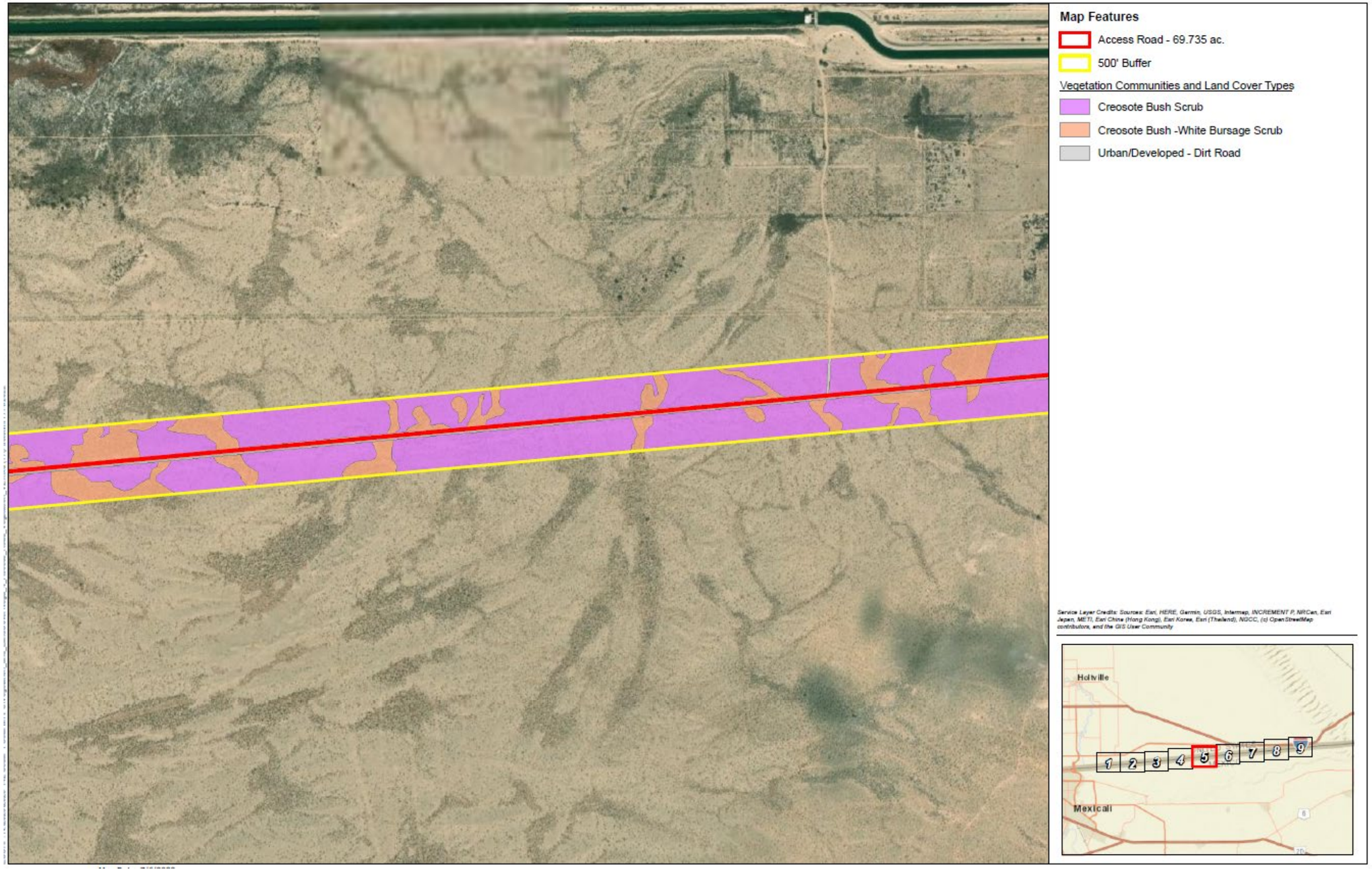
Source: Appendix D of this EIR

Figure 3.5-4. Vegetation Communities and Land Cover Types in the BSA (Sheet 4 of 9)



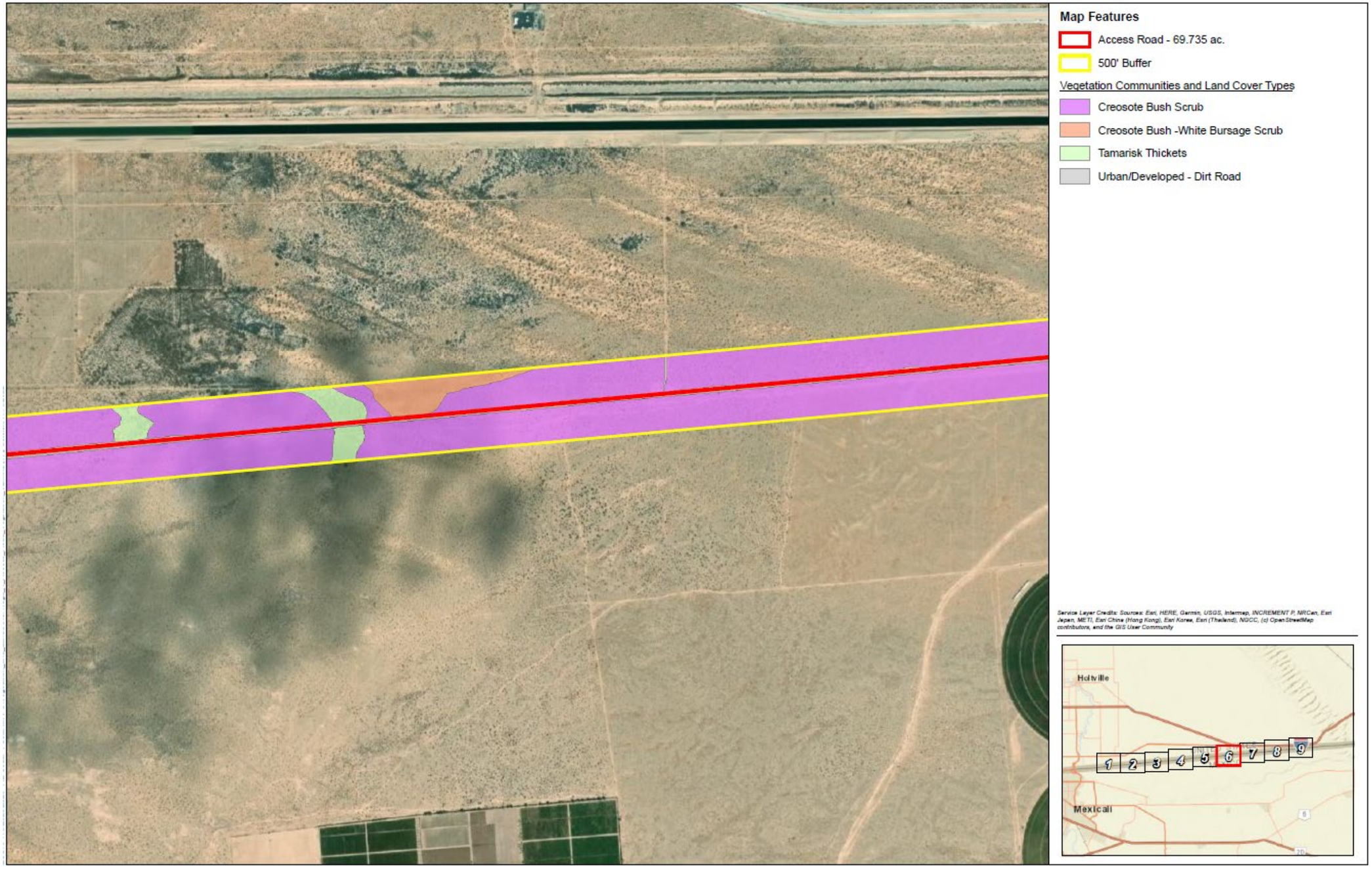
Source: Appendix D of this EIR

Figure 3.5-5. Vegetation Communities and Land Cover Types in the BSA (Sheet 5 of 9)



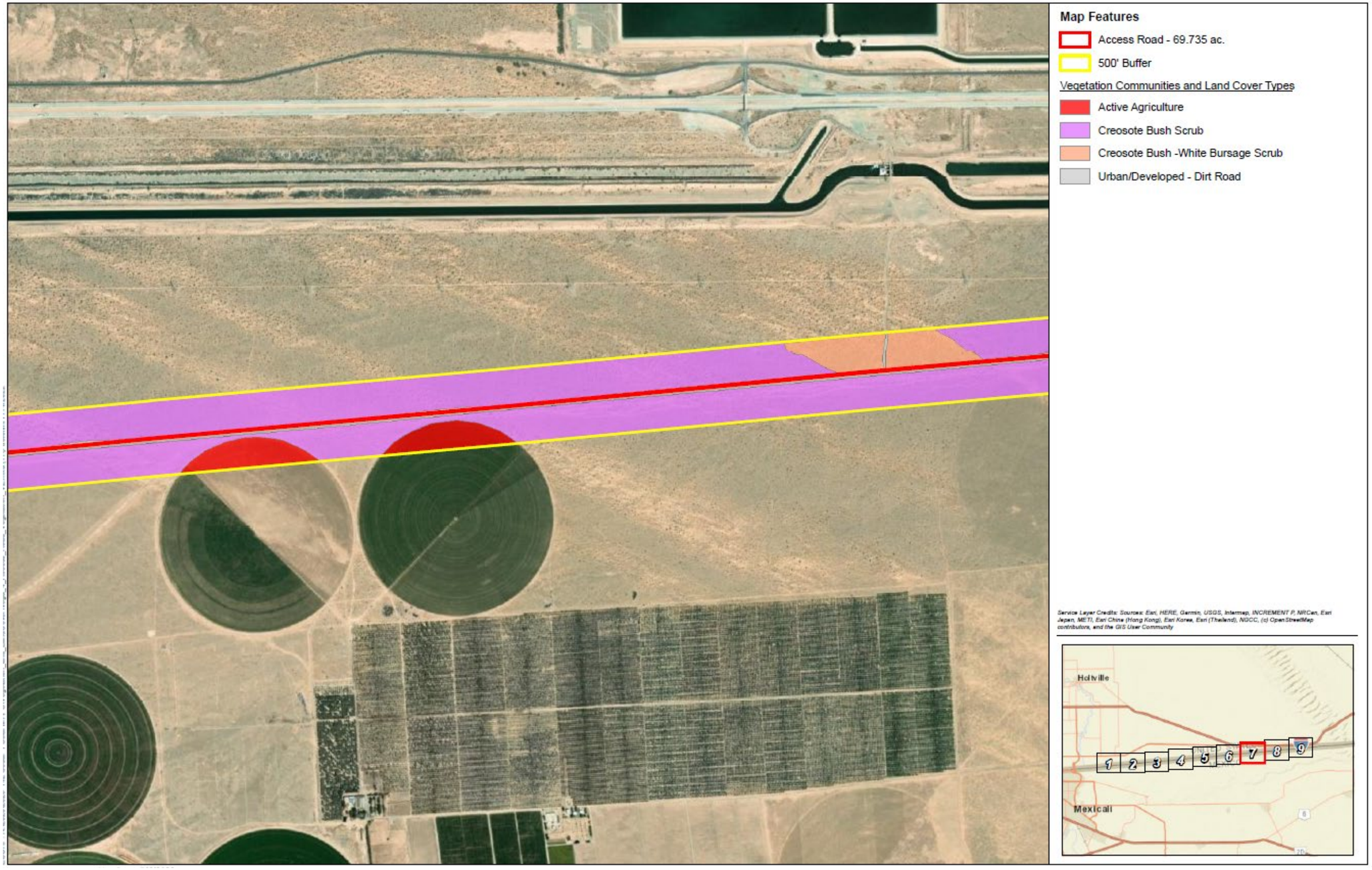
Source: Appendix D of this EIR

Figure 3.5-6. Vegetation Communities and Land Cover Types in the BSA (Sheet 6 of 9)



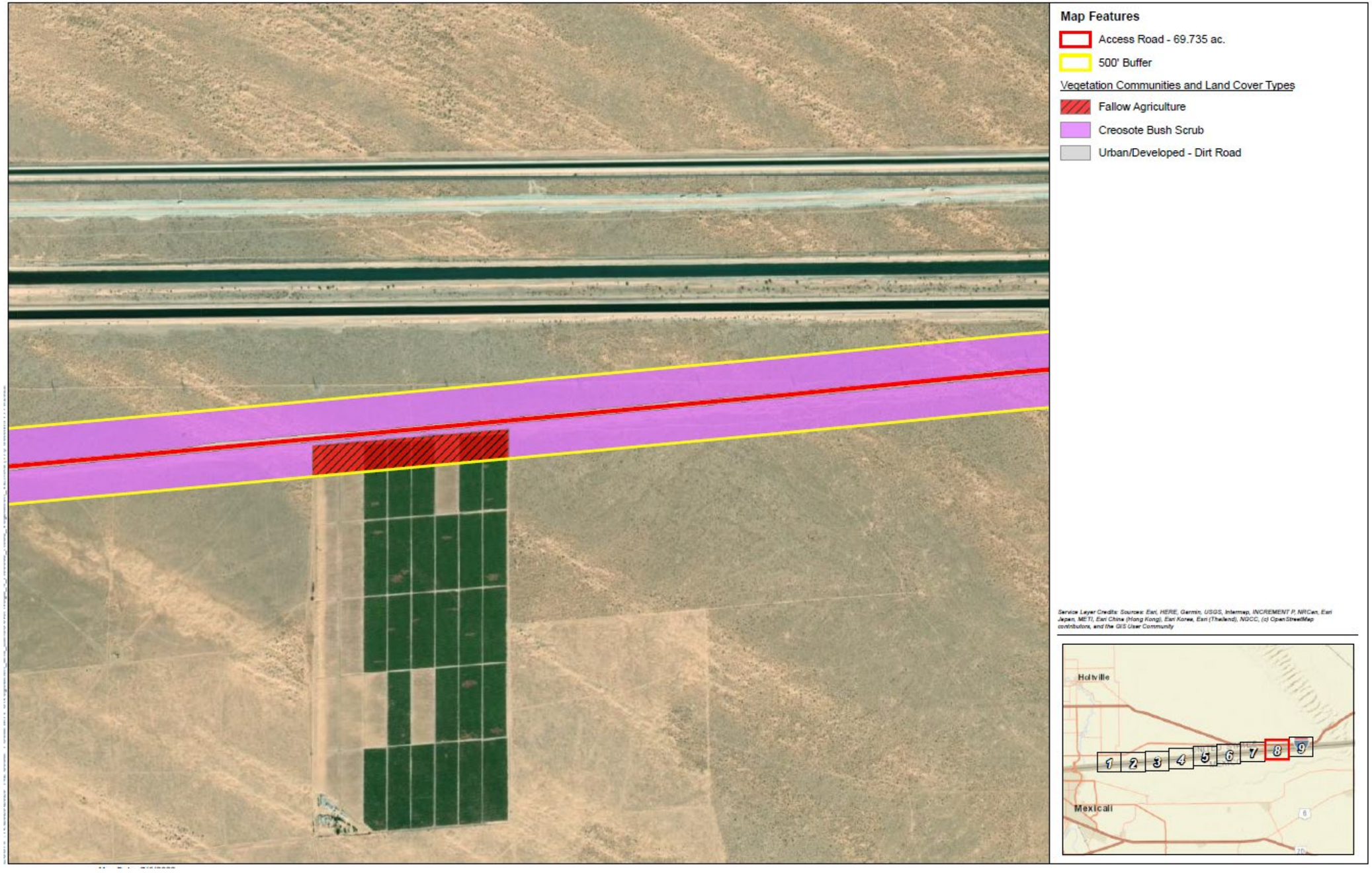
Source: Appendix D of this EIR

Figure 3.5-7. Vegetation Communities and Land Cover Types in the BSA (Sheet 7 of 9)



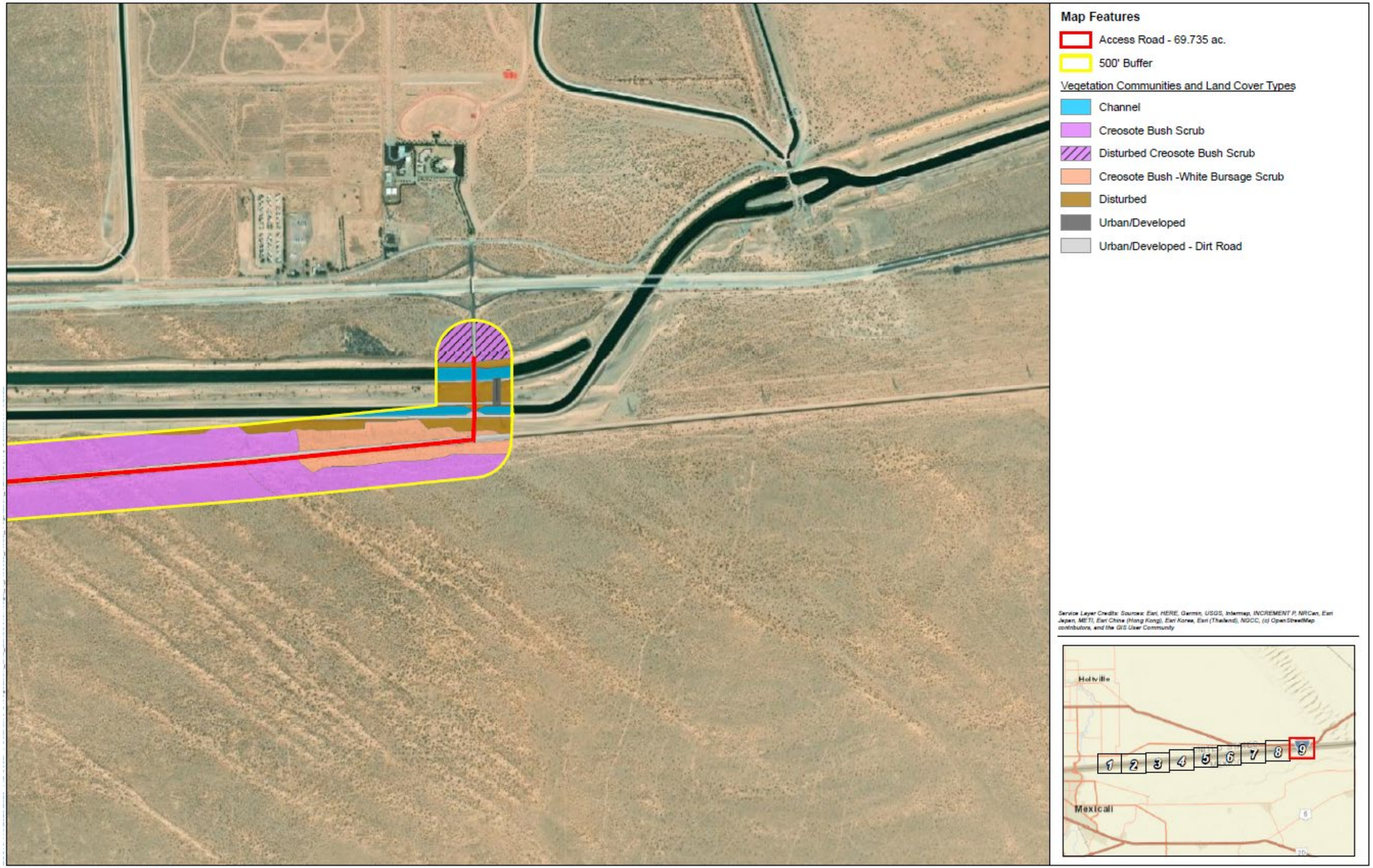
Source: Appendix D of this EIR

Figure 3.5-8. Vegetation Communities and Land Cover Types in the BSA (Sheet 8 of 9)



Source: Appendix D of this EIR

Figure 3.5-9. Vegetation Communities and Land Cover Types in the BSA (Sheet 9 of 9)



Source: Appendix D of this EIR

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Tamarisk Thickets (Tamarix spp. Shrubland Semi-Natural Alliance)

Tamarisk thickets are characterized by a weedy monoculture of tamarisk. This habitat is typically in ditches, washes, rivers, arroyo margins, lake margins, and other watercourses. On the project site, tamarisk and arrow weed were often co-dominant in this vegetation community. Other plant species observed included cattails (*Typha spp.*), screw bean mesquite (*Prosopis pubescens*), and willow baccharis.

Other Land Cover Types

DISTURBED

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and OHV use, but lack development. Disturbed land is not a vegetation classification, but rather a land cover type that is not restricted by elevation. On the project site, the areas consisted primarily of bare ground and Mediterranean grass. Other plant species observed on site included dyebush and white bursage.

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. There may be irrigated landscaped, ornamental species present between the hardscape. On the project site, this land cover was dominant and consisted primarily of compacted dirt roads, structures, and landscape trees including Mexican fan palm (*Washintonia robusta*) and Mexican palo verde (*Parkinsonia aculeata*). The entirety of the access road is this land cover type.

Sensitive Natural Communities

Tamarisk thicket occurs within the project site and is considered a sensitive natural community by CDFW.

Special-Status Species

Literature Review

Prior to conducting field surveys, a literature search was conducted to identify special-status plant and animal species with potential to occur within the project BSA. The literature review resulted in 14 special-status plant and 21 special-status wildlife species that have historically been recorded in the vicinity of the project or that are highly associated with habitat that occurs on the project site. Special-status plants were evaluated for their potential to occur within the project site (project footprint) where impacts could potentially occur. Special-status wildlife species were evaluated for their potential to occur within the BSA, a broader area, where direct and indirect impacts could potentially occur. The locations of special-status species observed on the project site are shown in Figure 3.5-10 (Sheet 1 of 9) and Figure 3.5-11 (Sheet 9 of 9).There were no special-status species observed on the east side of the solar facility and the majority of the access road therefore Sheet 2 of 9 through Sheet 8 of 9 of the map set were not included in this EIR. Please see the BRTR for the full map set.

Using information from the literature review and observations in the field, a list of special-status plant and animal species that have potential to occur within the BSA was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California FGC Sections 3511, 4700, 5050, or 5515; and
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Biological Reconnaissance Survey

Biological reconnaissance surveys were conducted by ECORP Consulting Inc. on September 28, 2020, April 12, 2022, and 13, 2022, by walking the entire project site to determine the existing vegetation communities and wildlife habitats on the project site. The biologists documented the plant and animal species present and the conditions within the BSA were assessed for their potential to provide habitat for special-status plant and wildlife species, including those identified in the literature review. Plant and wildlife species, including any special-status species that were observed during the survey, were recorded (see Appendix D of this EIR).

Potential for Occurrence Determinations

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the BSA were assessed for their potential to occur based on the following guidelines:

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

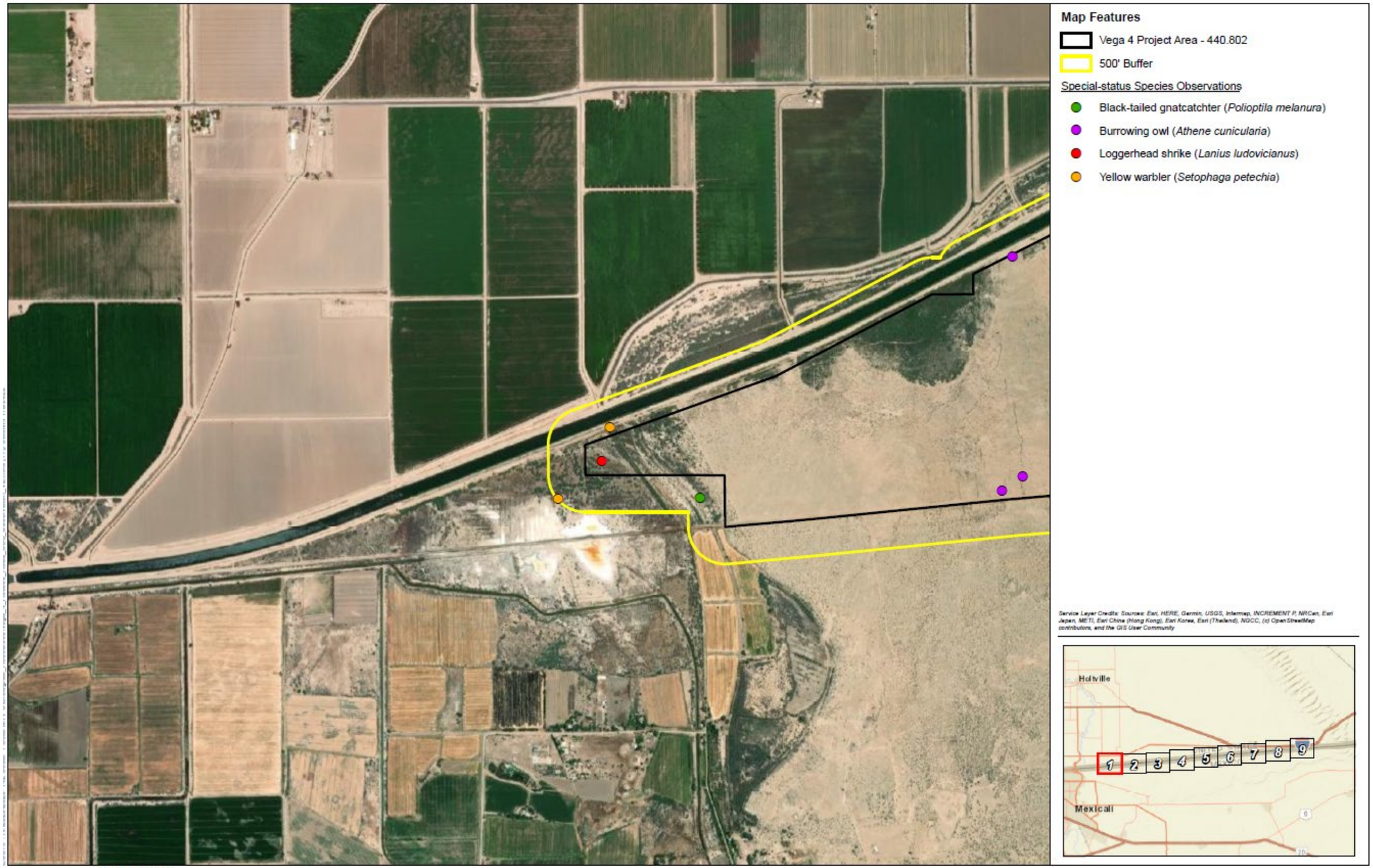
High Potential to Occur: Habitat (including soils and elevation factors) for the species occurs within the BSA and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

Moderate Potential to Occur: 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 five miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the BSA; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the project site.

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

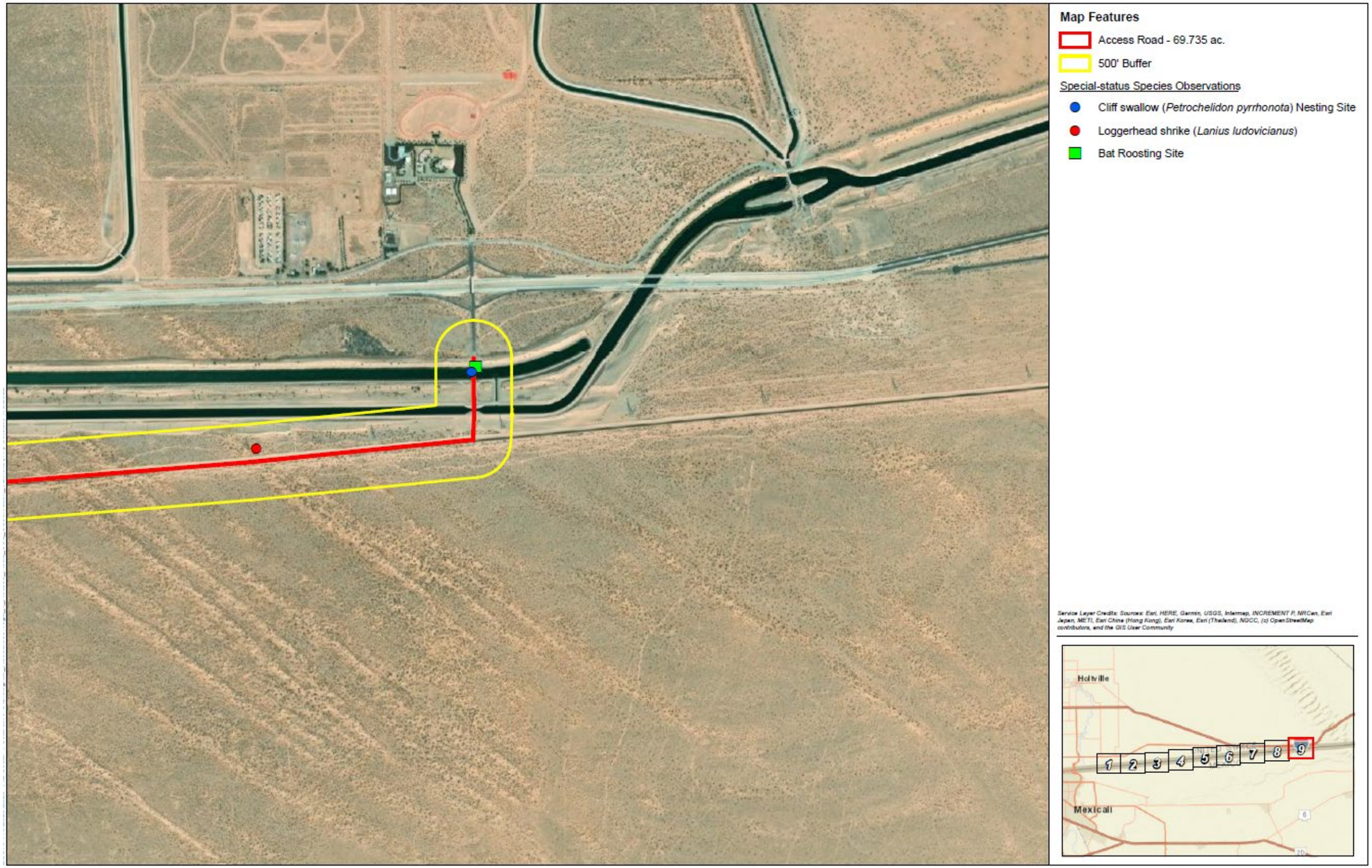
Presumed Absent: Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include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

Figure 3.5-10. Special-Status Species Observed On Site (Sheet 1 of 2)



Source: Appendix D of this EIR

Figure 3.5-11. Special-Status Species Observed On Site (Sheet 2 of 2)



Source: Appendix D of this EIR

Plant Species

PRESENT/OBSERVED

No special-status plant species were observed within the project site during the biological reconnaissance survey.

HIGH POTENTIAL TO OCCUR

No special-status plant species were determined as having a high potential to occur within the project site.

MODERATE POTENTIAL TO OCCUR

Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species were determined to have moderate potential to occur:

- Abrams' spurge (*Euphorbia abramsiana*) is a CNPS Rare Plant Rank (CRPR) 2B.2[1] plant species. This species is known to occur at elevations between 50 and 100 meters (164 and 328 feet) and blooms between September and November. Abrams' spurge is known to occur in creosote scrub habitat within sandy flats including playas, fields, disturbed areas, and washes. One historic CNDDB record was located approximately three miles northwest of the site near the Alamo River. Potential habitat occurs on the project site for this species in the disturbed creosote bush scrub habitat and the disturbed creosote bush – white bursage scrub habitat.
- Wiggins' croton (*Croton wigginsii*) is a CRPR 2B.2 plant species. This species is known to occur at elevations between 50 and 100 meters (164 and 328 feet) and blooms between March and May. Wiggins' croton is known to occur in sandy Sonoran desert scrub habitat. Two historic CNDDB records were recorded with the closest being from 1993 located approximately 0.92 miles east of the Project Area. Potential habitat occurs within Project Area for this species in the sandy, creosote bush scrub and the disturbed creosote bush – white bursage scrub habitats.
- Sand food (*Pholisma sonorae*) is a CRPR 1B.2 plant species. Sand food is known to occur at elevations between sea level and 200 meters (sea level and 656 feet) and blooms between April and June. It is known to occur in sandy Sonoran desert scrub habitat. One historic CNDDB record from 1954 was recorded approximately 0.5 mile north of the Project Area. Potential habitat occurs within the Project Area for this species in the sandy, creosote bush scrub and the disturbed creosote bush – white bursage scrub habitats.

LOW POTENTIAL TO OCCUR

The following species were found to have a low potential to occur on the project site because of limited habitat for the species on the site:

- Watson's amaranth (*Amaranthus watsonii*), CRPR 4.3
- Peirson's milk-vetch (*Astragalus magdalenae var. peirsonii*), CRPR 1B.2
- gravel milk-vetch (*Astragalus sabulonum*), CRPR 2B.2

[1] CNPS Rare Plant Rank: 2B = Plants rare, threatened, or endangered in California, but more common elsewhere; .2 Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)

- Algodones Dunes sunflower (*Helianthus niveus ssp. Tephrodes*), state-listed endangered and CRPR1B.2
- California satintail (*Imperfecta brevifolia*), CRPR 2B.1
- ribbed cryptantha (*Johnstonella costata*), CRPR 4.3
- winged cryptantha (*Johnstonella holoptera*), CRPR 4.3
- hairy stickleaf (*Mentzelia hirsutissima*), CRPR 4.3
- Darlington's blazing star (*Mentzelia puberula*), CRPR 2B.2
- Slender cottonheads (*Nemacaulis denudata var. gracilis*), CRPR 2B.2
- Giant Spanish-needle (*Palafoxia arida var. gigantea*), CRPR 1B.3

Wildlife Species

The literature search documented 21 special-status wildlife species in the vicinity of the project site, two of which are federally and/or State-listed. Of the 21 special-status wildlife species identified in the literature review, 5 were present within the project site, 2 were found to have a high potential to occur, 7 were found to have a moderate potential to occur and 3 were found to have a low potential to occur. The remaining 3 species are presumed absent from the project site due to lack of suitable habitat on the site: Gila woodpecker (*Melanerpes uropygialis*), western mastiff bat (*Eumops perotis ssp. californicus*), and big free-tailed bat (*Nyctinomops macrotis*).

WILDLIFE SPECIES PRESENT/OBSERVED

The following species were observed on the site during the biological reconnaissance survey:

- **Northern harrier, CDFW Species of Special Concern (SSC).** This species typically found in open habitats with dense ground cover including grasslands, agricultural fields, and marshes. Norther harriers nest on the ground, preferring wetland habitat for cover. One adult was observed scanning the landscape during the field surveys.
- **Burrowing owl, USFWS Bird of Conservation Concern (BCC), CDFW SSC, and Imperial County species of conservation focus.** Burrowing owl is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests, often in close proximity to California ground squirrel colonies. It primarily feeds on large insects and small mammals but will also eat birds and amphibians. Three burrowing owls were observed flushing to/from their burrows during field surveys in 2020 (see Figure 3.5-2). One burrowing owl was observed within the southern portion of the project site occupying a burrow along the berm of the access road.
- **Black-tailed gnatcatcher, CDFW watch-list (WL) Species.** This species remains in pairs all year, defending permanent territories. Black-tailed gnatcatchers prefer dry washes or desert brush with varied growth of mesquite, acacias, and paloverdes, but are also known to inhabit tamarisk scrub. A pair of black-tailed gnatcatchers was observed foraging and calling within the tamarisk thicket to the west within the buffer of the project site in 2020. This species was observed again within the same area in 2022 (Figure 3.5-10).
- **Yellow warbler, USFWS BBC and CDFW SCC.** This species prefers scrub and woodlands, particularly along waterways and wetlands. Typically, yellow warblers nest in willows, alders, and cottonwoods, but have been observed nesting in tamarisk scrub. Several adults were

observed foraging in the tamarisk scrub within the buffer to the northwest of the project site during field surveys in 2020 (see Figure 3.5-10).

- **Loggerhead shrike, USFWS BCC and CDFW SSC.** This species prefers open country with scattered shrubs and trees. They frequent agricultural fields, abandoned orchards, desert scrublands, and riparian areas. One individual was observed perching in the tamarisk thickets in the western section of the project site during field surveys in 2020 (see Figure 3.5-10). An individual was also observed perched within the creosote bush scrub habitat to the north of the access road in 2022 (see Figure 3.5-11).

HIGH POTENTIAL TO OCCUR

Although not present during field surveys, two species were found to have high potential to occur on the project site due to the presence of suitable habitat for the species on the site and because a known occurrence has been recorded within five miles of the site:

- **Flat-tailed horned lizard (*Phrynosoma mcallii*), CDFW SSC and Imperial County Species of conservation focus.** This species is most commonly found on sandy flats and valleys within desert scrub habitat with little or no windblown sand. They can also be found on salt flats and gravelly soils. The creosote bush scrub and salt flat habitats provide suitable habitat for the flat-tailed horned lizard.
- **Yuma hispid cotton rat (*Sigmodon hispidus eremicus*), CDFW SSC.** This species is generally associated with mesic habitats near drainage ditches, streams, and sloughs but also occurs in open fields or on the borders of open fields where there is dense grass habitat or agricultural fields. There is potential for this species to occur near the All-American Canal and nearby creosote bush scrub habitat. Two recent CNDDB records occur less than one mile north of the access road for the site. This species was found in arrow weed scrub and freshwater marsh adjacent to the All-American Canal in 2007.

MODERATE POTENTIAL TO OCCUR

Although not present during field surveys, seven species were found to have moderate potential to occur on the project site because habitat (including soils and elevation factors) for the species occurs on the site:

- **Yuma Ridgway's rail (*Rallus obsoletus yumanensis*), federally listed as endangered and state listed as threatened.** The Yuma Ridgway's rail prefers freshwater marshes composed of cattails and bulrushes. There is suitable habitat for this species within the wetlands nestled within the tamarisk and arrow weed scrub.
- **California horned lark (*Eremophila alpestris ssp. actia*), CDFW WL species.** It occurs in bare, open areas dominated by low vegetation or widely scattered shrubs, including prairies, deserts, and plowed fields. It nests in a hollow on the ground. The disturbed creosote scrub habitat onsite and in the buffer zones provides potential habitat. No CNDDB records occur within five miles of the project site.
- **Yellow-breasted chat (*Icteria virens*), CDFW SSC.** This species is commonly found in shrublands along rivers. There is potential for the yellow-breasted chat to occur within the arrow weed and tamarisk scrub in the eastern portion of the project site.
- **Pallid bat (*Antrozous pallidus*), CDFW SSC.** This species is commonly found in desert habitat and is known to roost in bridges. Potential roosting habitat for this species is present

within the Gordon Wells Road bridge that crosses over the offline storage canal, north of the All-American Canal.

- **Townsend's big-eared bat (Corynorhinus townsendii), CDFW SCC**. The project site is within the known range of this species and this species is known to roost in bridges. Potential roosting habitat for this species is present within the Gordon Road Wells bridge that crosses over the offline storage canal, north of the All-American Canal.
- **Western yellow bat (Lasiurus xanthinus), CDFW SSC.** This species is commonly found in desert habitat and is known to roost in the skirts of untrimmed palm trees. Potential roosting habitat for this species is present within the palm trees of the northeastern portion of the project site.
- **Arizona myotis (*Myotis occultus*) is a CDFW SSC.** The project site is within the known range of this species and this species is known to roost in bridges. Potential roosting habitat for this species is present within the Gordon Wells Road bridge that crosses over the offline storage canal, north of the All-American Canal.

LOW POTENTIAL TO OCCUR

Three species were found to have a low potential to occur on the project site because limited habitat for the species occurs on the site and a known occurrence has been reported in the database, but not within five miles of the site, or suitable habitat strongly associated with the species occurs on the site, but no records were found in the database search:

- southwestern willow flycatcher (*Empidonax traillii ssp. extimus*), federally listed endangered and state-listed endangered;
- Sonoran desert toad (*Incilius alvarius*), CDFW SSC; and,
- red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC.

WILDLIFE SPECIES PRESUMED ABSENT

The following three species are presumed absent from the Project Area due to the lack of suitable habitat on the site:

- Gila woodpecker (*Melanerpes uropygialis*), USFWS BCC and CDFW END;
- western mastiff bat (*Eumops perotis ssp. californicus*), CDFW SSC; and
- big free-tailed bat (*Nyctinomops macrotis*), CDFW SSC.

Aquatic Resources

The *Aquatic Resources Delineation Report* identifies the aquatic resources occurring within the project site that may be regulated by the Porter-Cologne Water Quality Act, California Fish and Game Code Sections 1600 and 1602, and USACE pursuant to Sections 401 and 404 of the federal Clean Water Act (CWA).

The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data was recorded on Wetland Determination Data Forms - Arid West Region and Arid West Ordinary High Water Mark (OHWM) Datasheets (see Appendix E of this EIR). ESRI© and SUAS aerial imagery were used to assist with mapping and ground-truthing.

Where jurisdictional features were present, the extent of potential Waters of the State and CDFW-regulated streambed and top-of-bank limits were determined using the OHWM in accordance with USACE requirements and guidelines, as well as SWRCB and CDFW delineation guidance (see Appendix E for details). Streambed widths were based on evidence of OHWM as observed during the field survey. In addition, each of the drainages were evaluated for the presence or absence of sediment deposits, litter/debris, water stains, soil shelving, and/or exposed roots indicating active hydrology within the channel. Streambed widths and other lateral limits of jurisdiction were calculated and recorded. The extent of associated riparian habitat was based on the extent of the canopy of the riparian community within or directly adjacent to the feature. Bank-to-bank width measures were also recorded and used as a measure of CDFW jurisdictional boundary where features lacked riparian vegetation.

A total of 11 resources summing to 2,940.82 acres of aquatic resources have been mapped within the project site. These results are subject to agency verification. Aquatic resources are summarized in Table 3.5-2 and depicted on Figure 3.5-12 through Figure 3.5-17. There were no aquatic resources mapped on the majority of the access road therefore those map sheets were not included in this EIR. Please see the *Aquatic Resources Delineation Report* for the full map set.

Features identified as an aquatic resource had wetland indicators present and/or physical evidence of flow including OHWM, defined bed and bank, presence of a clear and natural line impressed on the bank, the presence or absence of sediment deposits, litter/debris, and/or exposed roots indicating active hydrology within the channel. Associated riparian habitat identified within the project site consisted of hydrophytic vegetation and hydrological indicators but lacked hydric soil indicators.

Table 3.5-2. Aquatic Resources and Associated Vegetation on the Project Site

Resource Name[a]	Aquatic Resources Classification		OHWM/Wetland Presence Summary	Dominant Vegetation	Resource Size (acre)
	Cowardin[b]	Location (latitude/longitude)			
ED-1	R6	32.67954541/ -115.31681051	Runoff and precipitation; OHWM indicators: defined bed and bank and vegetation matted down, bent, or absent.	Tamarisk Thickets	701.55
ED-2	R6	32.67977819/ -115.31686094	Runoff and precipitation; OHWM indicators: defined bed and bank and vegetation matted down, bent, or absent.	Tamarisk Thickets	717.55
ED-3	R6	32.67983223/ -115.31627266	Runoff and precipitation; OHWM indicators: defined bed and bank.	Tamarisk Thickets	806.88
FSW-1	PSS1C	32.67960789/ -115.31829880	Wetland criteria met: hydrophytic vegetation present, hydric soils present,	Arrow Weed Thickets	N/A

Table 3.5-2. Aquatic Resources and Associated Vegetation on the Project Site

Resource Name[a]	Aquatic Resources Classification		OHWM/Wetland Presence Summary	Dominant Vegetation	Resource Size (acre)
	Cowardin[b]	Location (latitude/longitude)			
			and hydrological indicators present.		
FSW-2	PSS1C	32.68345488/ -115.31168036	Wetland criteria met: hydrophytic vegetation present, hydric soils present, and hydrological indicators present.	Tamarisk Thickets	N/A
FSW-3	PSS1C	32.68496608/ -115.30521625	Wetland criteria met: hydrophytic vegetation present, hydric soils present, and hydrological indicators present.	Tamarisk Thickets	N/A
PD-1	R2AB3H	32.67989722/ -115.31746236	Wetland criteria met within the channel with OHWM indicators; bisects wetland riparian habitat.	Tamarisk Thickets	664.88
Unassociated Riparian Habitat	N/A	32.68384969, -115.30666666	N/A	Arrow Weed and Tamarisk Thickets	N/A
Unassociated Disturbed Riparian Habitat	N/A	32.69004265 -115.29438590	N/A	Disturbed Arrow Weed Thickets	N/A
All American Canal[c]	R2UBHx	32.70397136 -114.95717380	N/A	Unvegetated	24.99
Off Line Storage[c]	R2UBHx	32.70532216 -114.95718630	N/A	Unvegetated	24.97
Total					**2940.82**

Source: Appendix E of this EIR

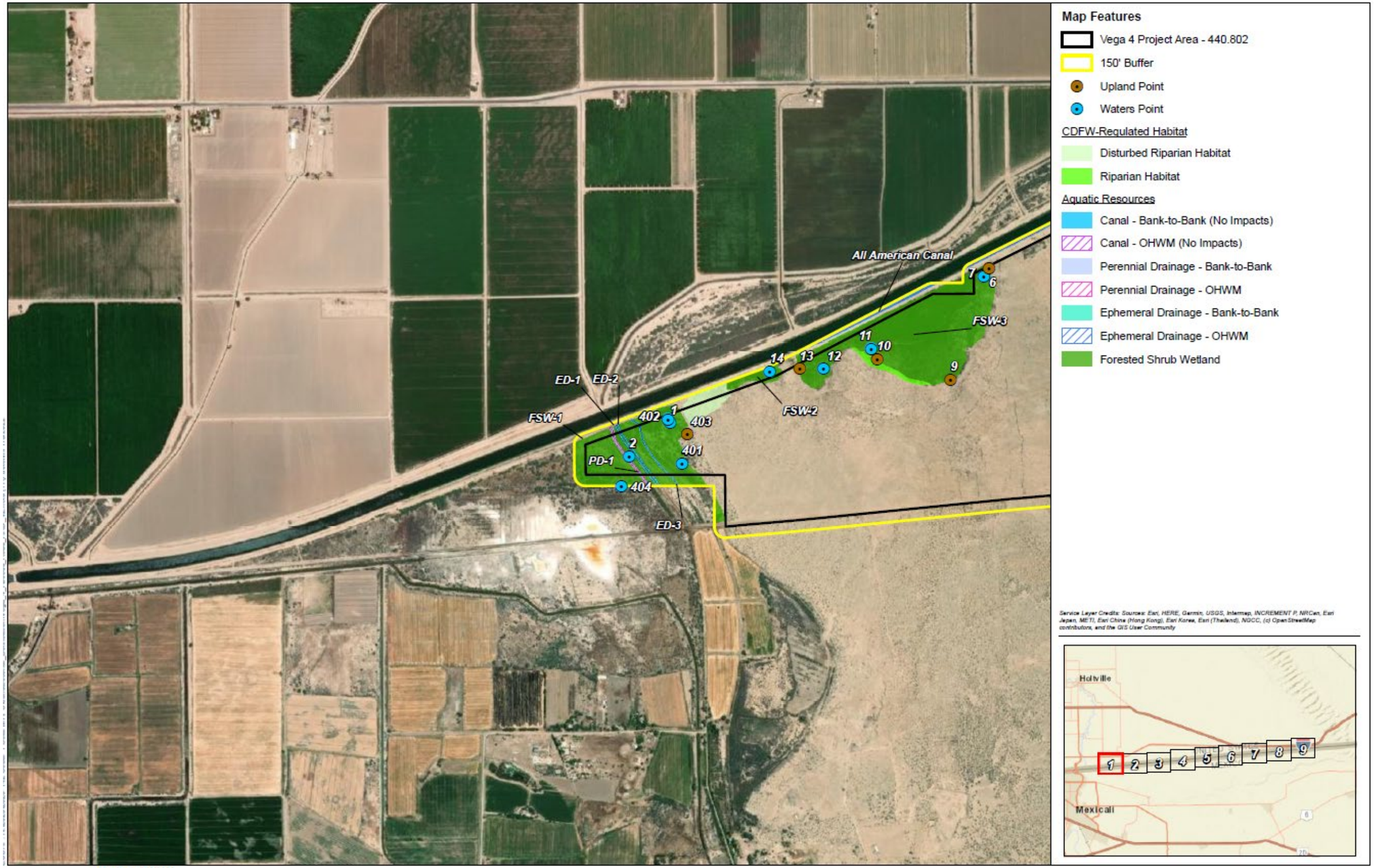
Notes:

a ED= Ephemeral Drainage, FEW= Freshwater Emergent Wetland, FSW= Freshwater Forested/Shrub Wetland, PD= Perennial Drainage.

b Cowardin Codes: (R6) Riverine, ephemeral; (PEM1C) Freshwater Emergent Wetland; (PSS1C) Freshwater Forested/Shrub Wetland; (R2AB3H) Riverine, lower perennial, aquatic bed, rooted vascular.

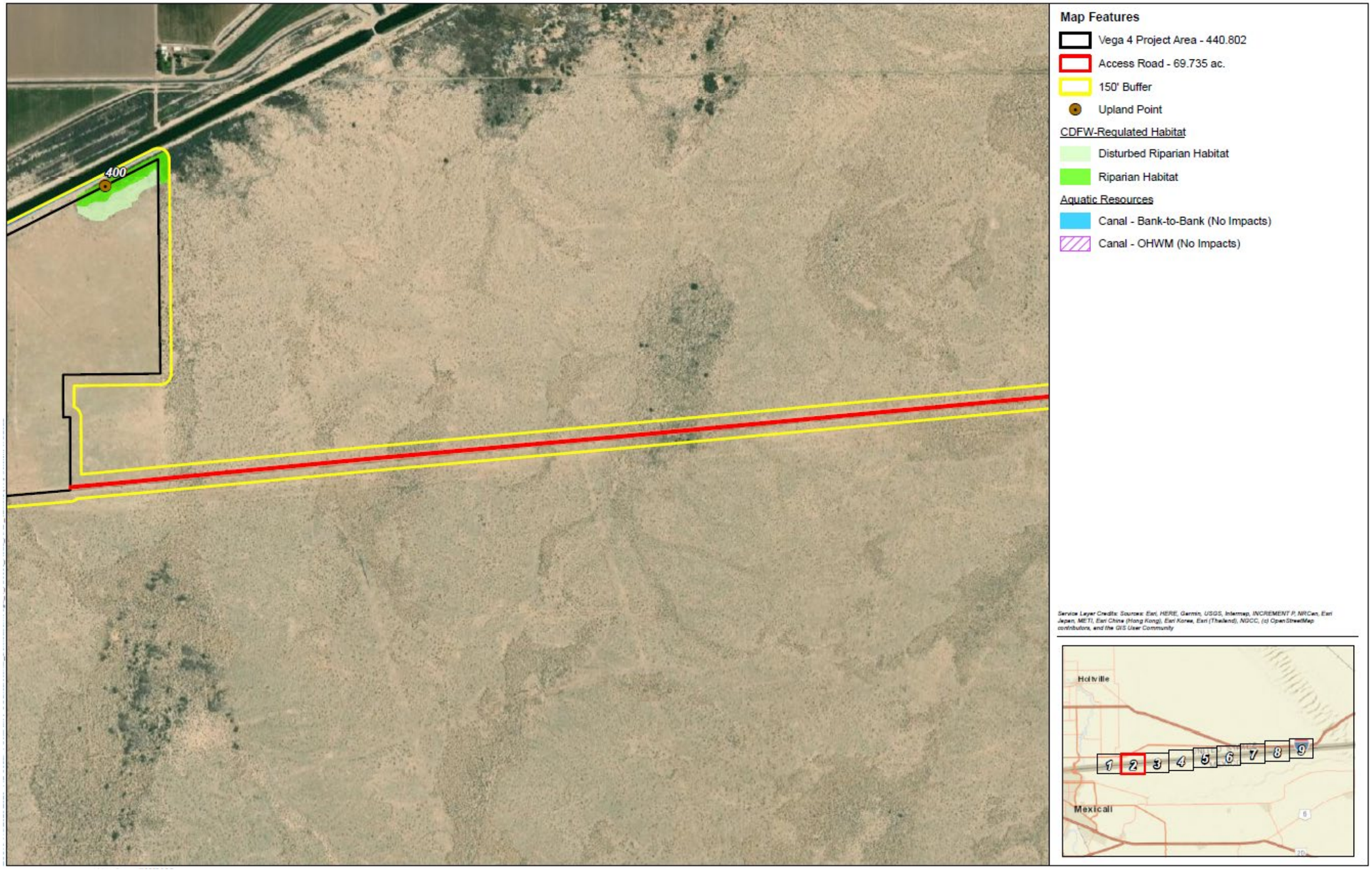
c Impacts to these features are not expected to occur, as features flow beneath access road entry bridge.

Figure 3.5-12. Potential Jurisdictional Waters (Sheet 1 of 6)



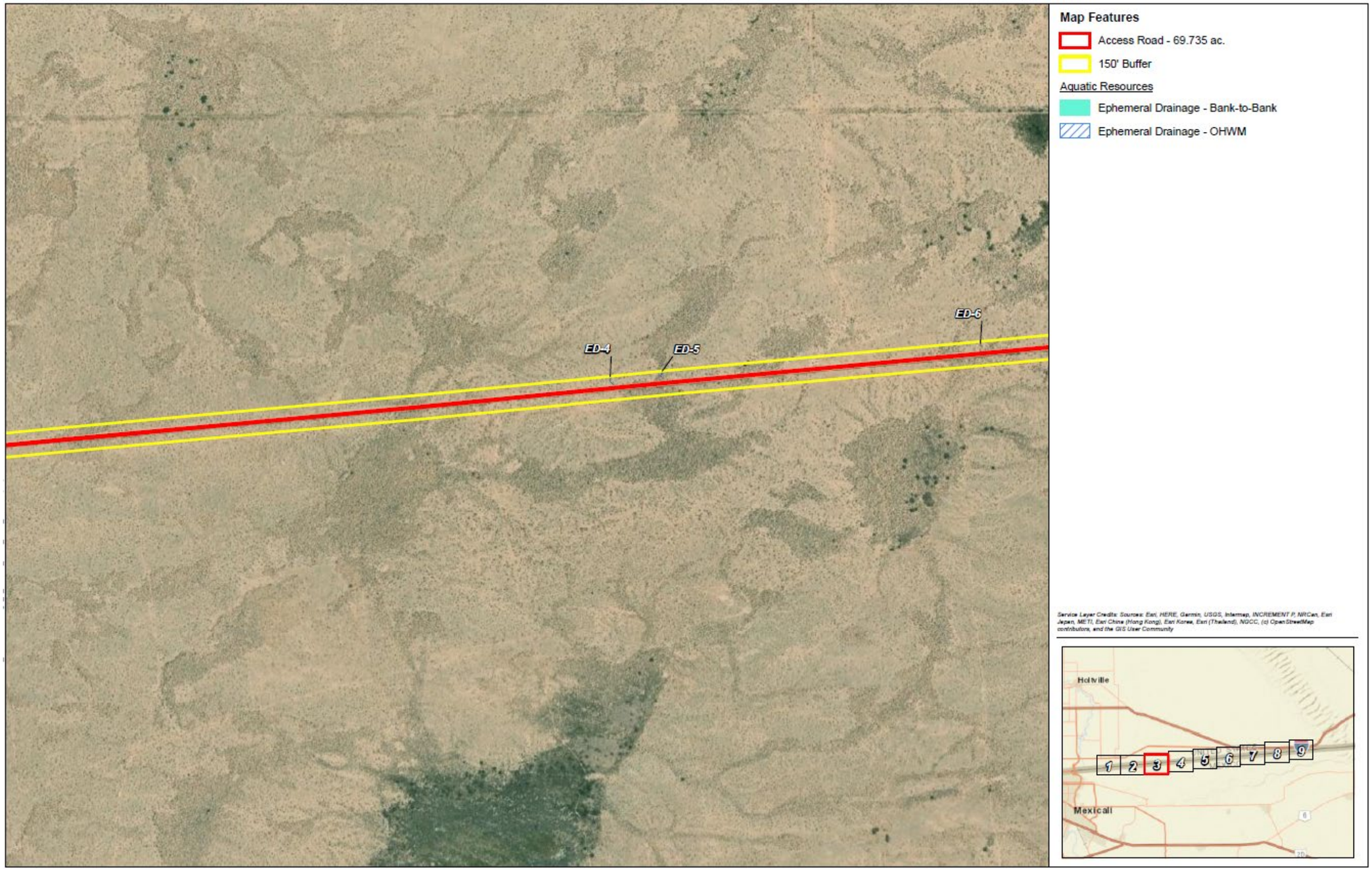
Source: Appendix E of this EIR

Figure 3.5-13. Potential Jurisdictional Waters (Sheet 2 of 6)



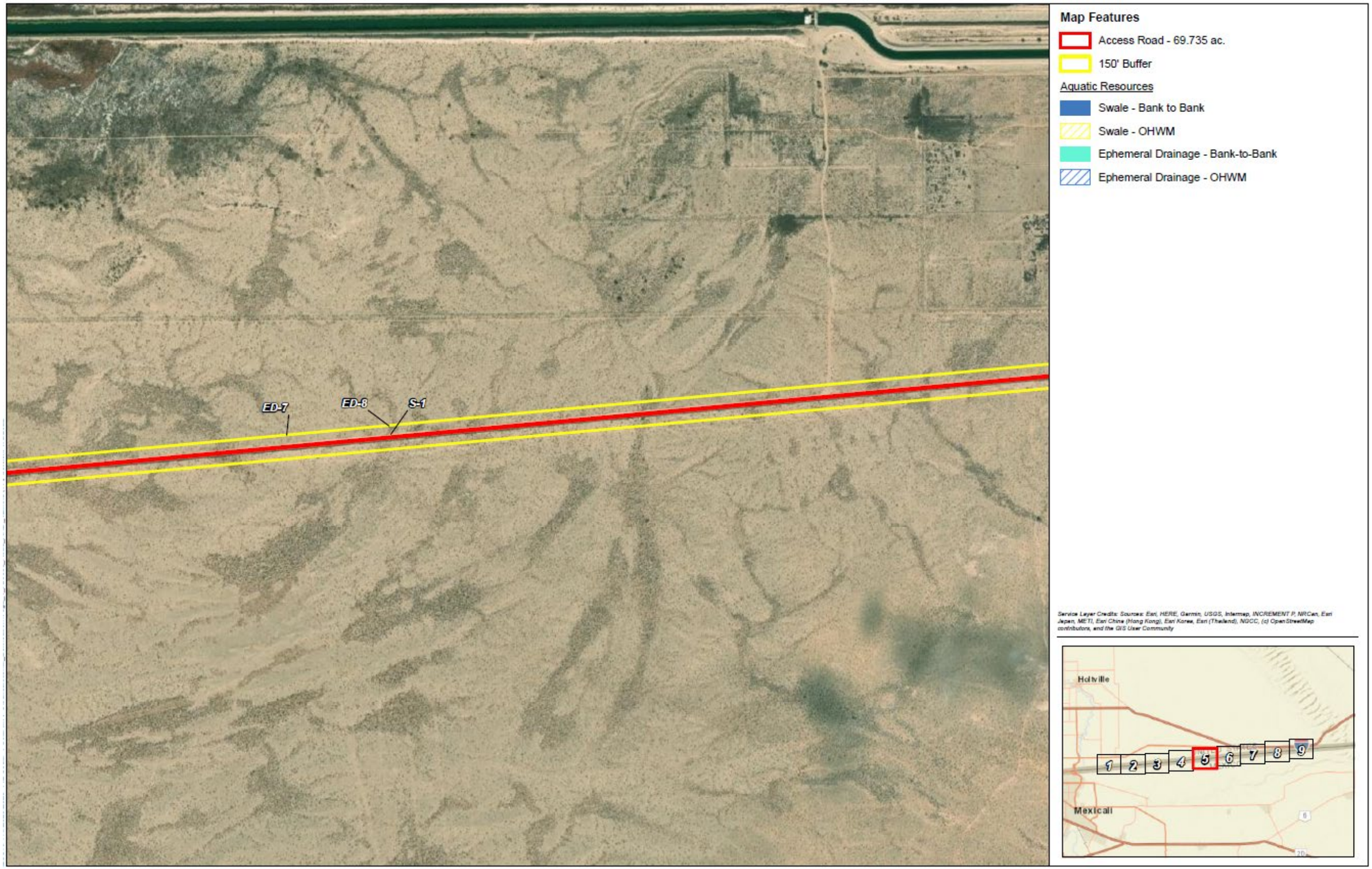
Source: Appendix E of this EIR

Figure 3.5-14. Potential Jurisdictional Waters (Sheet 3 of 6)



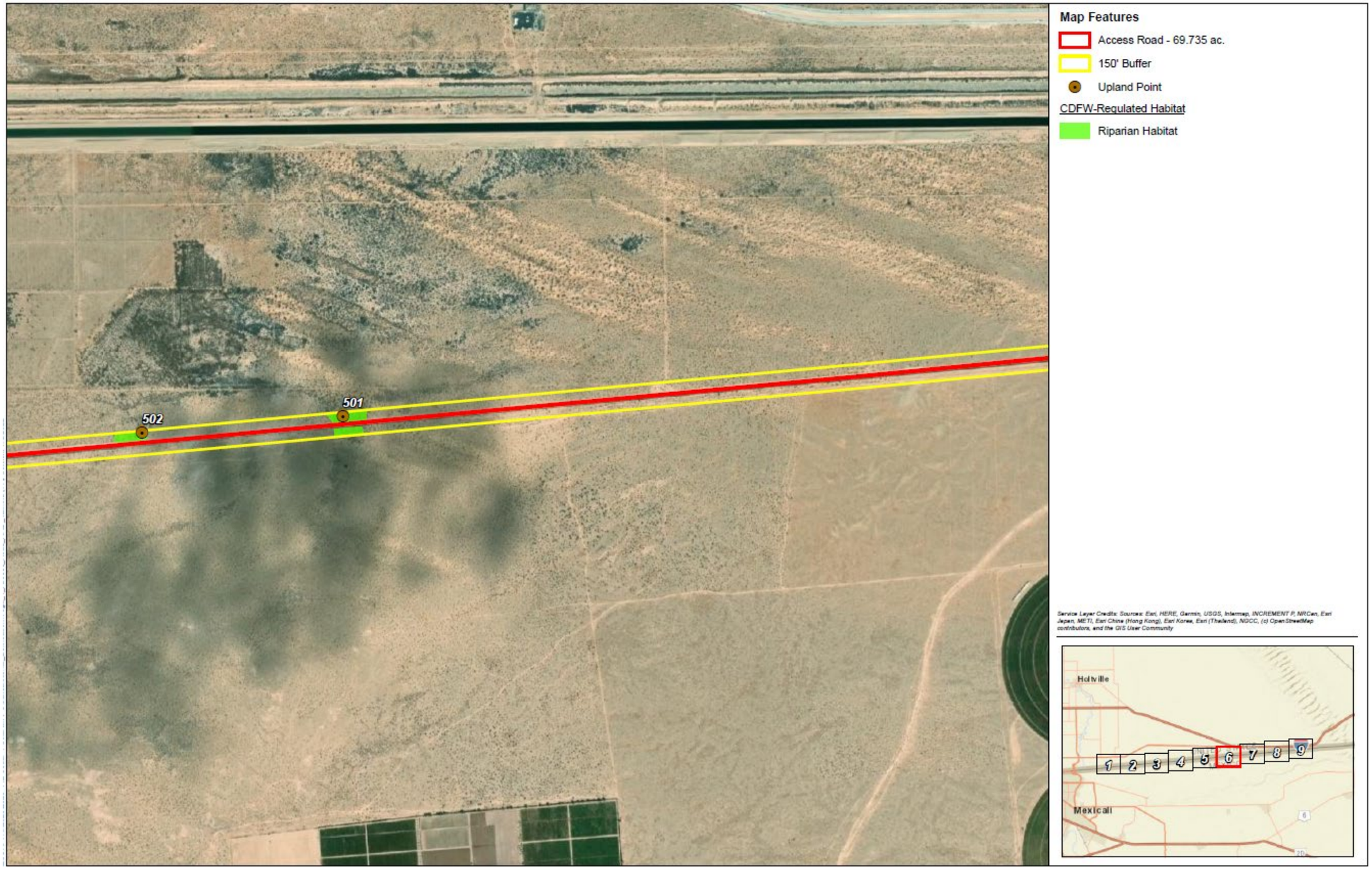
Source: Appendix E of this EIR

Figure 3.5-15. Potential Jurisdictional Waters (Sheet 4 of 6)



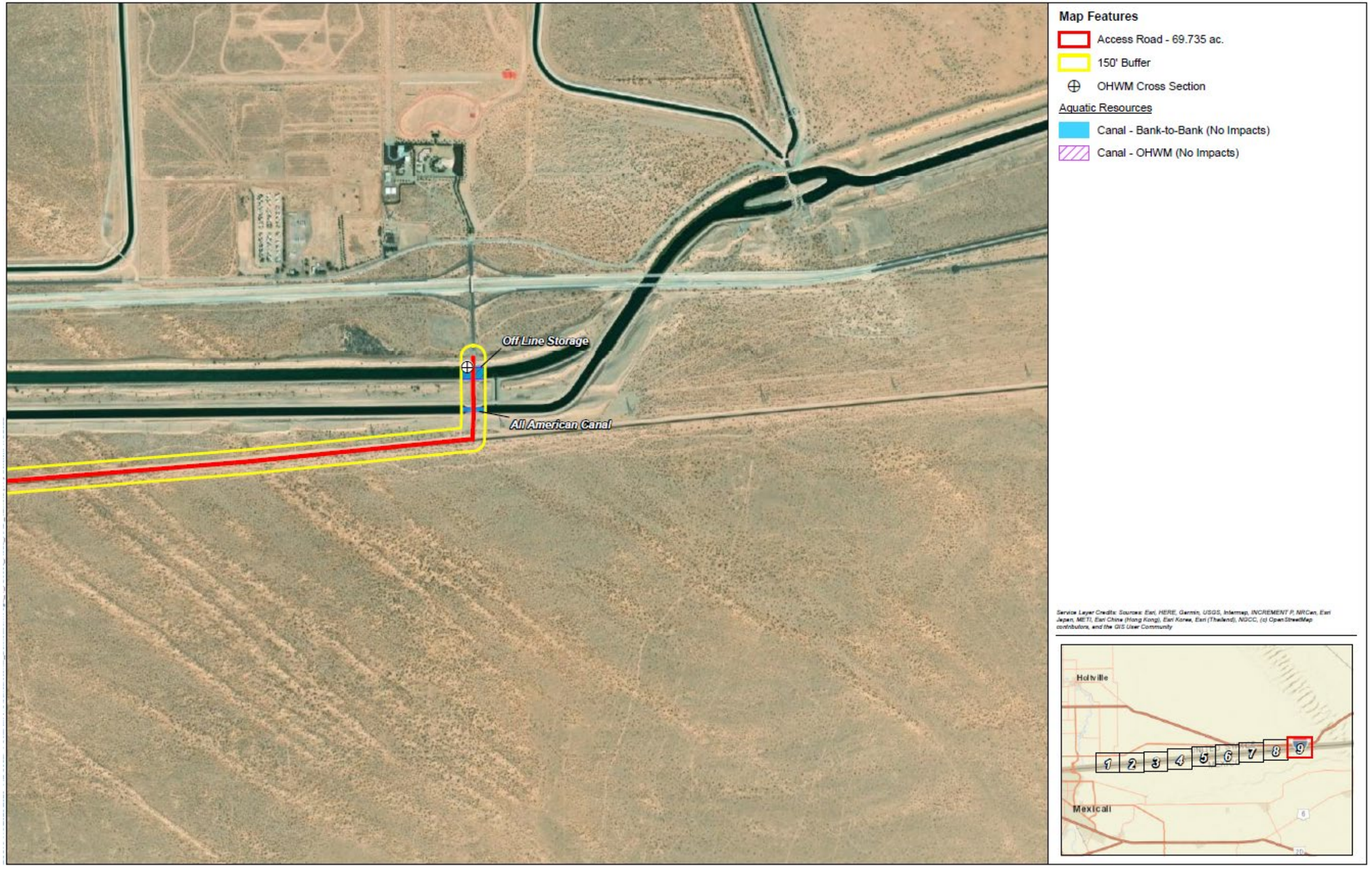
Source: Appendix E of this EIR

Figure 3.5-16. Potential Jurisdictional Waters (Sheet 5 of 6)



Source: Appendix E of this EIR

Figure 3.5-17. Potential Jurisdictional Waters (Sheet 6 of 6)



Source: Appendix E of this EIR

Wetlands

FRESHWATER FORESTED/SHRUB WETLAND

Freshwater forested/shrub wetlands (FSW) are dominated by woody vegetation such as true shrubs, young trees (saplings), and trees or shrubs that are stunted due to environmental conditions. They are seasonally flooded: therefore, surface water is present for extended periods, particularly in the early growing season, but is absent by the end of the growing season in most years. The water table can be variable after a flooding event, and ranges from saturation at the ground surface to a water table well below the ground surface. As shown in Table 3.5-2 and Figure 3.5-12, there are three FSW within the project site (FSW-1, FSW-2, and FSW-3).

Other Aquatic Resources

PERENNIAL DRAINAGE

Perennial drainages (PD) are linear features that exhibit a bed and bank and an OHWM. These features typically contain surface water flowing continuously year-round. As shown in Table 3.5-2 and Figure 3.5-12, there is one PD within the project site. OHWM indicators observed for the perennial drainage (PD-1) that occurs within the western portion of the project site included defined bed and bank, change in vegetation species, change in vegetation cover, and natural line impressed in bank. The existing hydrology of PD-1 supports emergent wetland habitat within the channel.

EPHEMERAL DRAINAGE

Ephemeral drainages (ED) 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. As shown in Table 3.5-2 and Figure 3.5-12, the project site contains three ephemeral drainages within the western portion of the site (ED-1, ED-2, and ED-3). These manmade drainages convey flow through the project site and into a freshwater emergent wetland located off-site to the west.

MANMADE FEATURES

A total of two main canals managed by IID, the All-American Canal and the associated Off-line Storage Canal, were identified within the access road portion of the Study Area and are assumed to flow perennially. Both canals bisect the easternmost portion of the Study Area (Figure 3.5-17). The concrete-lined All-American Canal is maintained by IID in order to be free of vegetation for water conveyance efficiency. The Off-line Storage Canal is natural-bottomed, and flow and water levels are maintained by IID. The All-American Canal brings water from the Colorado River at the Imperial Dam and supplies it to the Imperial Valley through smaller lateral canals, all of which ultimately drain to the Salton Sea (Appendix E). Because these canals flow underneath the access road entry bridge, no impacts are expected to occur to either canal.

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.

The project site was assessed for its ability to function as a wildlife corridor. The project site has an extensive riparian corridor in the western corner of the site that provides cover for migrating and nesting birds. It also provides foraging habitat for raptors and small and large mammals, including rodents and canids. The desert washes located within the western corner of the project boundaries are likely utilized by wildlife moving through the area; therefore, these features and associated riparian habitat would be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby direct connectivity to wetlands to the south of the project site. The northern and southern boundaries are restricted by the All-American Canal to the north and the U.S./Mexico border wall borders the southern buffer of the BSA. Although the border wall inhibits large mammal movement, avian species and small mammals may fly over or cross through the wall.

The disturbed creosote bush scrub portion of the project site is sparse with low plant diversity, and therefore offers little shelter and foraging habitat. The project site is open with barriers to the north and south, leaving the terrain accessibility constrained for ground-truthing wildlife. The project borders the western edge of expansive agricultural fields and is surrounded to the north, west, and south by agriculture. Thus, the creosote scrub habitat only currently provides wildlife movement opportunities to the east because it consists of open and relatively unimpeded land. In conclusion, the creosote bush scrub habitat portion of the project site 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 project's proximity to farming lands. The creosote bush scrub habitat within the project boundaries is exposed and does not contain any major features that would be considered critical movement corridors for wildlife. Therefore, the creosote bush habitat acts as more of a buffer between agricultural lands and wildlands to the east, but not as a corridor for wildlife.

Habitat Conservation Plans

The project site is not located in a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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

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).

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.

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 Section1600 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.

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 3.5-3 analyzes the consistency of the project with specific policies contained in the Imperial County General Plan associated with biological resources.

Table 3.5-3. Project Consistency with General Plan Goals and Policies

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element - *Open Space and Recreation Conservation* **Policy No. 2 -** The County shall participate in conducting detailed investigations into the significance, location, extent, and condition of natural resources in the County. **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.	Consistent	A biological assessment has been conducted at the project site to evaluate the proposed project's potential impacts on biological resources. No special-status plant species were identified within the BSA. Five special-status wildlife species, including burrowing owl, were identified within the project site. However, with implementation of Mitigation Measures BIO-1 through BIO-7, potential impacts to these species would be reduced to a level less than significant. Applicable agencies responsible for protecting plants and wildlife will be notified of the proposed project and provided an opportunity to comment on this EIR prior to the County's consideration of any approvals for the project.

Table 3.5-3. Project Consistency with General Plan Goals and Policies

General Plan Policies	Consistency with General Plan	Analysis
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. **Objective 1.6 -** Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.	Consistent	A biological assessment has been conducted at the project site to evaluate the project's potential impacts on biological resources. No special-status plant species were identified within the BSA. Five special-status wildlife species, including burrowing owl, were identified within the BSA. However, with implementation of Mitigation Measures BIO-1 through BIO-7, potential impacts to these species would be reduced to a level less than significant. With implementation of Mitigation Measures BIO-1 through BIO-7, the project would not result in residual significant and unmitigable impacts on biological resources.

Source: County of Imperial 1993
BLM=Bureau of Land Management; CDFW – California Department of Fish and Wildlife; EIR – environmental impact report; USFWS – U.S. Fish and Wildlife Service

3.5.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts on 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, filing, 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

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description, to interact with local biological resources on the project site. 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.

A biological resources technical report and aquatic resources delineation report were prepared for the 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.

Impact Analysis

Impact 3.5-1 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?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

Construction

SPECIAL-STATUS PLANTS

As stated above, the literature review identified 14 special-status plant species that have the potential to occur within the project site. However, 11 of these plant species have a low potential to occur due to limited suitable habitat. There is moderate potential for three rare plant species, Abram's spurge (CRPR 2B.2), Wiggins' croton (CRPR 2B.2), and sand food (CRPR 1B.2), to be present within the project area. Suitable habitat for these species is present within the creosote bush scrub and disturbed creosote bush – white bursage scrub habitats. Impacts that may occur to the species during project construction includes loss of individuals, habitat, and seedbank. Depending on the size of the population, potential impacts be significant. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce impacts to a level less than significant.

SPECIAL-STATUS WILDLIFE

The literature review identified 21 special-status wildlife species that have the potential to occur within the project site. However, six of these species have a low or no potential to occur due to the lack of suitable and/or limited habitat within the project site. Wildlife species that are presumed absent from the project site include Gila woodpecker, western mastiff bat, and big free-tailed bat. Wildlife species with a low potential to occur include Sonoran Desert toad, red-diamond rattlesnake, and southwestern willow flycatcher.

Five special-status wildlife species were observed on site during the habitat assessment: black-tailed gnatcatcher, northern harrier, burrowing owl, yellow warblers, and loggerhead shrikes were observed in the tamarisk thickets in the western portion of the project site. Burrowing owl and their burrows were observed within the disturbed creosote-white bursage scrub in the western portion of the project site,

within a berm adjacent to the access road, and in a concrete pile in the northeastern corner of the site. The proposed project has been designed to avoid impacts to tamarisk thickets occurring on the project site. As shown on the Site Plan (Figure 2-3), project components would not be sited on the project site where tamarisk thickets are present. This vegetation community would not be removed on the project site thereby avoiding habitat removal. However, there is still potential that construction activities occurring adjacent to this vegetation community could result in direct and indirect impacts on special-status species. Direct construction-related impacts to wildlife species that could occur include injury, mortality, nest failures, and loss of young. Indirect impacts include increase in anthropogenic effects (i.e., noise levels, introduction of invasive/nonnative species, increase in human activity, and increase in dust. However, implementation of Mitigation Measures BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6 would reduce potential impacts to a level less than significant.

Foraging habitat for a number of raptor species and breeding habitat for numerous passerine species that are protected by the MBTA occurs throughout the project site. The project site provides nesting habitat for ground-nesting species as well as species that nest in riparian scrub habitat. Due to the lack of large trees within the survey area, there is no suitable nesting habitat for raptor species. However, northern harriers are ground nesters; therefore, the tamarisk thicket and disturbed arrow weed thicket habitats provide potential nesting habitat for this species. 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 raptors species, increase in noise and human activities, and potential introduction of invasive/nonnative species. Potential impacts would be considered significant. Implementation of Mitigation Measures BIO-2, BIO-5, and BIO-6 would reduce potential impacts to a level less than significant.

The palm trees located within the project site may provide roosting habitats for bat species, particularly western yellow bat, a SSC species. These trees could function as maternity roost sites for this species. During the 2022 assessment of the access road, a bat roost was observed within the bridge at Gordon Wells Road that crosses the offline storage canal, north of the All-American Canal. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats). Based on the quantity of bats within the bridge and the timing of the observation of the colony, there is high likelihood that this is a maternity roost. The Gordon Wells Road bridge will be used for access to the solar field portion of the project site and no direct impacts are expected to occur to the bridge. However, there may be indirect impacts to the roost through noise and vibration, due to a temporary increase in traffic above the bridge during construction. However, because the bridge currently functions as an active roadway, the colony would be expected to be accustomed to noise and vibrations associated with traffic and indirect impacts would not be expected to be significant. The solar facility site is located approximately 22 miles west of the bridge and work is expected to occur within a 12-month period. An increase in truck traffic over the bridge to facilitate construction of the project is not expected to have a significant impact on the bat colony and will be temporary in nature.

Operation

All electrical components on the project site shall be either undergrounded or protected so that there will be no exposure to wildlife and therefore no potential for electrocution. Additionally, based on the Avian Powerline Interaction Committee's (APLIC) 1996 report on power line electrocution in the U.S., avian electrocution risk is highest along distribution lines (generally less than 69 kV) where the

distance between energized phases, ground wires, transformers, and other components of an electrical distribution system are less than the length or skin-to-skin contact distance of birds. The distance between energized components along transmission lines (>69 kV) is generally insufficient to present avian electrocution risk. Therefore, no impact to avian is anticipated to occur due to electrocution along the proposed gen-tie line.

CONSTRUCTION ACCESS ROAD

During construction, vendors and heavy construction equipment would access the project site via Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing dirt road paralleling the U.S./Mexico Border. This existing dirt road is actively used by the U.S. Border Patrol during patrol operations. The dirt road is on urban/developed land. The use of this access road during construction is not anticipated to result in potential impacts on biological resources, with the exception of roosting bats, if present. Bat acoustic surveys and monitoring should be implemented to determine if sensitive bat species occur within the Gordon Road Wells bridge or palm trees (if planned for removal). All bat species with potential for occurrence for the project are SSC species and potential project-related impacts to bat species and bat maternity roosts are considered significant. Implementation of BIO-7 would reduce impacts to bat species and maternity roosts to a level less than significant.

Because vehicles and construction equipment would be required to stay within the existing boundaries of the dirt road to avoid and/or minimize ground disturbance to undisturbed and vegetated areas, other impacts to biological resources are not anticipated. Furthermore, the project applicant would not make improvements to the existing dirt road except for the application of water for dust suppression.

Mitigation Measure(s)

BIO-1 **Rare Plant Surveys.** Prior to initiating ground disturbance, rare plant surveys shall be conducted within suitable habitat on the project site during the appropriate blooming period for the Abrams' spurge (approximately September through November), Wiggins' croton (approximately March through May), and sand food (approximately April through June). The surveys shall be conducted by a botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. If project-related impacts to rare plants on the project site are unavoidable, then consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.

BIO-2 **General Impact Avoidance and Minimization Measures.** The following measures will be applicable throughout the life of the project:

- To reduce the potential indirect impact on migratory birds, bats and raptors, the project will comply with the APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012)

- All electrical components on the project site shall be either undergrounded or protected so that there will be no exposure to wildlife and therefore no potential for electrocution.
- The project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for the biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist will be familiar with the local habitats, plants, and wildlife. The Project Biologist will also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and monitor construction. The Project Biologist will monitor activities within construction areas during critical times, such as vegetation removal, the implementation of Best Management Practices (BMP), and installation of security fencing to protect native species. The Project Biologist will ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.
- The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) will be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment will be confined to the flagged areas.
- No potential wildlife entrapments (e.g., trenches, bores) will be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.
- To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies will be covered or capped in storage or laydown area, and at the end of each workday in construction, quarrying and processing/handling areas. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches will be left open either temporarily or permanently.
- No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), may be used within the project site, on off-site project facilities and activities, or in support of any other project activities.
- Avoid wildlife attractants. All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife. Water applied to dirt roads and construction areas for dust abatement shall use the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins will be removed to avoid attracting wildlife to the active work areas.
- To minimize the likelihood for vehicle strikes on wildlife, speed limits will not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.

- Avoid night-time construction lighting or if nighttime construction cannot be avoided use shielded directional lighting pointed downward and towards the interior of the project site, thereby avoiding illumination of adjacent natural areas and the night sky.
- All construction equipment used for the Project will be equipped with properly operating and maintained mufflers.
- Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, will be stored within secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment will consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/Visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor.
- The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, will be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each work day.
- In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor will ensure that all portable fuel containers are removed from the project site.
- All equipment will be maintained in accordance with manufacturer's recommendations and requirements.
- Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project.
- The Contractor will utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.
- If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment will occur in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species.
- Appropriate BMPs will be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from bridge construction to prevent their deposition in waterways. No sediment or debris will be allowed to enter the creek or other drainages. All debris from construction of the bridge will be contained so that it does not fall into channel. Appropriate BMPs will be used by the Contractor during construction to limit the spread of resuspended sediment and to contain debris.

- Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.
- Firearms, open fires, and pets would be prohibited at all work locations and access roads. Smoking would be prohibited along the Project alignment.
- Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.
- Any injured or dead wildlife encountered during project-related activities shall be reported to the project biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.
- Stockpiling of material will be allowed only within established work areas.
- Actively manage the spread of noxious weeds
- The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.

BIO-3 **Worker Environmental Awareness Program.** Prior to project construction, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts to special-status biological resources and the potential penalties for impacts to these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following:

- The purpose for resource protection;
- A description of special-status species including representative photographs and general ecology;
- Occurrences of USACE, RWQCB, and CDFW regulated features in the Project study area;
- Regulatory framework for biological resource protection and consequences if violated
- Sensitivity of the species to human activities;
- Avoidance and minimization measures designed to reduce the impacts to special-status biological resources;
- Environmentally responsible construction practices;
- Reporting requirements;
- The protocol to resolve conflicts that may arise at any time during the construction process; and

- Workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed and would be kept on record

BIO-4 **Burrowing Owl Avoidance and Minimization.** Take Avoidance (pre-construction) surveys for burrowing owl shall be completed prior to project construction. Surveys shall be conducted as detailed within Appendix E of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). If burrowing owl is not detected, construction may proceed.

- If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.
- If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.

BIO-5 **Pre-Construction 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 pre-construction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the black-tailed gnatcatcher, northern harrier, yellow warbler, burrowing owl, and loggerhead strike, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting-bird survey shall include the project site 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. If construction activities cease for a period of greater than three days during the bird breeding season, a pre-construction nesting bird survey shall be conducted prior to the commencement of activities. Final construction buffers or setback distances shall be determined by the qualified biologist in coordination with USFWS and CDFW on a case-by-case basis, depending on the species, season in which disturbance shall occur, the type of disturbance, and other factors that could influence susceptibility to disturbance (topography, vegetation, existing disturbance levels, etc.).

BIO-6 **Pre-Construction Survey for Special-Status Species.** A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys should take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present on the project site or that were identified as having a high potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, burrowing owl, northern harrier, black-tailed gnatcatcher, and yellow warbler. Should any special-status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.

BIO-7 **Bat Acoustic Surveys and Monitoring.** To avoid impacts to bat species, a qualified bat biologist shall conduct an appropriate combination of sampling, exit counts, and acoustic surveys to determine if bats are using the palm tree resources in the project area. If project-related impacts to bat species are unavoidable, additional measures may need to be implemented to reduce or eliminate impacts to bat species, including maternity roosts, such as tree removal occurring outside of bat breeding season (October through February) or two-step, two-day removal of palm trees under supervision of a qualified bat biologist.

Significance After Mitigation

Project construction has the potential to directly impact special-status wildlife species. However, implementation of Mitigation Measures BIO-1 through BIO-7 would reduce potential impacts to a less than significant level.

Impact 3.5-2 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?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

RIPARIAN HABITAT

Both riparian habitat and disturbed riparian habitat are present within the project site. They are associated with the floodplain adjacent to the wetlands and drainages throughout the site. A total of 5.8 acres of riparian habitat and 8.22 acres of disturbed riparian habitat exists within the project site. The proposed project has been designed to avoid impacts to the riparian habitat and disturbed riparian habitat on the project site. As shown on the Site Plan (Figure 2-3), project components would not be sited on the project site where riparian habitat and disturbed riparian habitats are present. Solar panels, structures, and new access roads will not be placed within 50 feet of wetland and riparian habitat boundaries. Therefore, the proposed project would have no impact on riparian habitats.

SENSITIVE NATURAL COMMUNITIES

Tamarisk thicket occurs within the project site and is considered a sensitive natural community by CDFW. The proposed project has been designed to avoid impacts to this sensitive natural community. As shown on the Site Plan (Figure 2-3), project components would not be sited on the project site

where tamarisk thickets are present. Implementation of the project would result in no impact on sensitive natural communities.

CONSTRUCTION ACCESS ROAD

The existing dirt access road is on urban/developed land. No riparian habitat or sensitive natural communities are located within or adjacent to the access road. Therefore, the use of the access road during construction would have no impact on riparian or sensitive natural communities.

Mitigation Measure(s)

No mitigation is required.

Impact 3.5-3 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?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

The *Aquatic Resources Delineation Report* prepared for the project (Appendix E of this EIR) identified 11 aquatic resources on the project site and access road (see Table 3.5-2 and Figure 3.5-12 through Figure 3.5-17). The proposed project has been designed to avoid impacts to aquatic resources. As shown on the Site Plan (Figure 2-3), project components would not be sited on the project site where aquatic resources are present. Implementation of the project would result in no impact on state or federally protected aquatic resources.

CONSTRUCTION ACCESS ROAD

The existing dirt access road is on urban/developed land. No aquatic resources are located within or adjacent to the access road. Therefore, the use of the access road during construction would have no impact on riparian or sensitive natural communities.

Mitigation Measure(s)

No mitigation is required.

Impact 3.5-4 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?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

The project site is located adjacent to areas containing existing disturbances (i.e., roads, border wall, and active agricultural land). The majority of the project site does not contain suitable vegetation and/or cover to support wildlife movement and is nestled on the edge of agricultural and development; therefore, wildlife movement opportunities connecting the project site to large, undeveloped natural areas is extremely limited. Wildlife will be able to continue to use the riparian habitat and surrounding agricultural lands as a potential corridor and nursery site. The proposed project is not expected to significantly impact wildlife movement through the project vicinity and a less than significant impact would occur.

ACCESS ROAD

The existing dirt access road is on urban/developed land. Therefore, the use of the access road during construction would have no impact on wildlife movement.

Mitigation Measure(s)

No mitigation is required.

Impact 3.5-5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

The proposed project consists of the construction and operation of a solar energy facility and associated electrical transmission lines. Development of the solar facility is subject to the County's zoning ordinance.

The project site is located on three privately owned legal parcels zoned Heavy Agriculture with a Renewable Energy Zone Overlay (A-3-RE). Pursuant to Title 9, Division 5, Chapter 9, "Solar Energy Plants" and "Transmission lines, including supporting towers, poles microwave towers, utility substations" are uses that are permitted in the A-3 Zone, subject to approval of a CUP from Imperial County.

As demonstrated in Table 3.5-3 and discussed further in Section 3.11 Land Use Planning, with approval of a CUP, the project would be consistent with Imperial County General Plan, and with biological resources policies contained therein. Therefore, implementation of the proposed project would not result in a significant impact associated with the project's potential to conflict with local policies protecting biological resources.

CONSTRUCTION ACCESS ROAD

The use of the access road during construction is not anticipated to result in potential impacts on biological resources because vehicles and construction equipment would be required to stay within the existing boundaries of the dirt road to avoid and/or minimize ground disturbance to undisturbed and vegetated areas. Furthermore, the project applicant would not make improvements to the existing dirt road except for the application of water for dust suppression. Based on these considerations, the use of the access road during construction would not conflict with local policies protecting biological resources.

Mitigation Measure(s)

No mitigation is required.

Impact 3.5-6 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?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

The project site is not located in a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Implementation of the proposed project would result in no impact associated with the potential to conflict with local conservation plans.

CONSTRUCTION ACCESS ROAD

The construction access road is not located in a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the use of the access road during construction would result in no impact associated with the potential to conflict with local conservation plans.

Mitigation Measure(s)

No mitigation is required.

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. 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. Nesting birds and burrowing owl could occupy the project site as well as habitat abutting the access roads or gen-tie line. Adjacent native habitats could be degraded by the introduction of invasive species or by wildlife caused by construction activities. These impacts could be significant. 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

The project does not impact state or federally protected wetlands, does not conflict with any local policies or ordinances protecting biological resources and does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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.

Therefore, the project would not result in residual significant and unmitigable impacts related to biological resources.

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3.6 Cultural Resources

This section discusses 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.

Information for this section is summarized from the Cultural Resources Inventory prepared by ECORP Consulting, Inc. This report is included in Appendix F of this EIR. The cultural resources inventory included a records search, literature review, and field survey.

The Area of Potential Effects (APE), or project area, consists of the horizontal and vertical limits of a project and includes the area within which significant impacts to historical resources or historic properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to CEQA and for the purposes of this EIR, the term “project area” is used rather than APE.

The horizontal limit of the project area includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, and paving. The horizontal limit of the project area measures approximately 528 acres. It should be noted that the project applicant re-designed the project to remove the western parcel (APN 059-209-010) after the completion of the Cultural Resources Inventory Report and field survey. This re-design reduced the original project site to 450 acres. The Cultural Resources Inventory Report and field survey covered the original project footprint.

The vertical limit of the project area is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical limit includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical limit varies across the project, depending on the depth of the grading or trenching for installation of facilities. The Cultural Resources Inventory assumes it could extend as deep as 10 feet below the current surface; therefore, review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical limit also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. The Cultural Resources Inventory assumes the above-surface vertical limit is up to 30 feet above the surface.

3.6.1 Existing Conditions

Cultural Setting

Regional Pre-contact History

EARLY HOLOCENE (10,000-6,500 BP) AND MIDDLE HOLOCENE (6,500-3,500 BP)

The Salton Trough area of the Colorado Desert has little archaeological material dating to the Early and Middle Holocene. The only indications of use of this area during this 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 and Elko series projectile points recovered during investigations at the Test Base yielded a date of 5,840 ±250 years BP. This data suggests that 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 F of this EIR).

LATE ARCHAIC PERIOD (3,000 TO 1,300 BP)

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 F of this EIR).

LATE PERIOD (1,300 BP TO CONTACT)

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. When water ceased to flow from the river, the lake dried, markedly reducing the availability of resources. 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. 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 F 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. However, Late Prehistoric archaeological sites in this area belong to the Patayan. Patayan I begins about 1,300 BP and is indicated archaeologically by the presence of small arrow points and by the appearance of Black Mesa Buff and Colorado Beige ceramics along the Colorado River. 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. Within other areas of the the southern Salton Trough, ceramics first appear about 1,000 BP at the beginning of Patayan II. Later Patayan II (AD 1000 – 1700) and III (AD 1700 – 1850) ceramics include Tumco Buff and Colorado Buff.

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.

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. Floral remains indicated use of these sites during

all four seasons. These large multi-seasonal residential bases were likely occupied during the three Lake Cahuilla lake stands between AD 1200 and 1680, along the ancient shorelines in the Coachella Valley. These sites also contain abundant fish bone, waterfowl bone, and shell from freshwater shellfish which indicate use of both lowland and upland resources. Typical artifacts at these sites include cottonwood and desert side-notched arrow points, buff ware ceramics, and late pre-contact marine shell beads.

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 who had residential bases or villages along the Colorado River. These sites 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, which was still occupied by Yuman speakers, their use of the desert area was more intensive. Therefore, temporary camps used by ancestors of the Chemehuevi as well as lithic scatters, should be larger than those dating prior to AD 1200. 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.

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.

Ethnohistory

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. 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. Village locations were selected for seasonal use and were occupied by exogamous, patrilineal clans or bands. 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 were held in the winter residential bases. The Kumeyaay were geographically and linguistically divided into western and eastern Kumeyaay. 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 eastern and western Kumeyaay met in the mountains in the fall, where they gathered black oak acorns, traded, and held ceremonies (Appendix F of this EIR).

Beginning in 1775, the seminomadic life of the Kumeyaay began to change as a result of contact with Euro-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.

Regional History

In September of 1771, Father Francisco Garcés followed the Gila River west to its confluence with the Colorado River, traveled south to the Laguna de Salada in Baja California, then turned northwest until he reached the southern end of Imperial Valley. Garcés and his party were the first Europeans to see the Salton Sink region. After his return to Mexico, Garcés talked of his discovery to Captain Juan Bautista de Anza, the commander of the Spanish presidio at Tubac, in what is now southern Arizona. Anza wrote to the Viceroy of Mexico, Antonio María Bucareli Ursúa, and received permission to mount an expedition to cross the Colorado River into California. The Anza expedition crossed the Colorado River near Yuma, entering the Colorado Desert. Rather than crossing or skirting the extensive sand dunes that lie west of Yuma, Anza followed the river south into Baja California, then turned north. After about three weeks of hardship, the expedition reached Imperial Valley west of the future site of Calexico. After crossing Borrego Valley and the Santa Rosa Mountains, Anza and his men reached Mission San Gabriel in Los Angeles on March 22, 1774, having become the first Europeans to cross the Colorado Desert and what would later be known as Imperial Valley (Appendix F of this EIR).

The first proposal to irrigate the Colorado Desert for agriculture came from Dr. Oliver M. Wozencraft after he saw Indians cultivating plots during an exploratory trip in May of 1849. Wozencraft secured the rights to 1,600 square miles of desert land in the Salton Sink from the California Legislature in 1859 with engineer Charles R. Rockwood directing operations. In 1891, the Colorado River Irrigation Company was formed. In 1896, Rockwood formed the California Development Company and Canadian capitalist George Chaffey, the founder of Ontario, California, provided funding and promotion for the company in 1900. By 1902, the Central Main Canal (Imperial Canal) had been built and water began flowing from the Colorado River just south of the U.S.-Mexico border, via the Alamo River, to the canal.

Agricultural development of the sink as a result of irrigation and real estate promotion by Chaffey and the California Development Company exceeded expectations. The population of 2,000 in 1902 grew to 7,000 by 1903 and to more than 10,000 by 1904; and from little or no cultivation in 1900, agriculture in the Salton Sink grew to 120,000 acres under cultivation by January of 1905. During the winter of 1904-1905, greater than usual rainfall in the watershed area of the Gila River caused a high rate of discharge into the Colorado River and resulted in the clogging of canal intake systems with a disproportionate amount of silt. After four floods, the Alamo River-Imperial Canal system overflowed, and the entire discharge of the Colorado River began to pour into the Salton Sink, creating the Salton Sea. Agricultural development resumed in Imperial Valley after the flooding of the Salton Sea was brought under control in early 1907.

With the increasing acreage under irrigation and cultivation, and the Southern Pacific Railroad reaching southward all the way through Imperial and El Centro to Calexico, the population of Imperial Valley and the region surrounding it had grown to around 20,000 by 1907. After prominent Imperial Valley citizens petitioned for Imperial Valley to be separated from the County of San Diego, a vote was held on August 6, 1907; and on August 12, 1907, Imperial County was created. Although Imperial was the first city to be established and incorporated in the region, El Centro was chosen by election to be the county seat later that year.

The IID was established in July 1911 and was the largest irrigation district in the world at that time, covering an area of 817 square miles. In June 1916, the IID purchased the canal system built by the California Development Company. Today, the IID provides water for 6,471 square miles in Imperial Valley and is the most extensive irrigation district in the U.S. Agriculture, dairy farming, and cattle raising have been the economic staples of Imperial Valley since the early twentieth century. Although

the Great Depression of the 1930s brought hardships to the area, it also brought many agricultural workers from the Oklahoma dust bowl who became permanent residents. The completion of Boulder (Hoover) Dam on the Colorado River in 1935, and the All-American Canal from the river to Imperial Valley in 1940, increased and secured the region's irrigation water supply, solidifying the Imperial Valley's economy.

Records Search

A records search from the South Coastal Information Center (SCIC) of the CHRIS at San Diego State University was requested on September 15, 2020, to determine the extent of previous surveys within a 1-mile of the project area, and whether previously documented pre-contact or historic-period archaeological sites, architectural resources, or traditional cultural properties exist within this area.

Previous Research

On September 21, 2020, the results from the CHRIS records search revealed that 12 previous cultural resources investigations have been conducted within 1 mile of the project area between 1973 and 2001. Eight previous cultural resources investigations overlap the project area, and the records search indicates that portions of the project area have been previously surveyed as part of a cultural resources technical study. Though portions of the project area were previously surveyed, these surveys took place more than 19 years ago under obsolete standards. The length of time that has passed between the prior surveys and the present necessitated a resurvey of the project area. A list of previous cultural resources investigations of the project area is provided in the Cultural Resources Inventory (Appendix F of this EIR).

Previously Recorded Resources

The CHRIS records search determined that six previously recorded cultural resources are located within 1 mile of the project area. Previously recorded resources comprise two historic-period canals, one historic-period bridge, one international boundary monument, one multicomponent precontact ceramic scatter/historic-period refuse deposit, and one pre-contact temporary camp with habitation debris. One previously recorded resource, an historic-period refuse deposit, is located within the project area. Table 3.6-1 details of all seven previously recorded resources.

Table 3.6-1. Previously Recorded Cultural Resources Within 1-Mile of the Project Area

Site No.	Description	NRHP/CRHR Eligibility	Within Project Area?
CA-IMP-000319	Temporary camp with habitation debris	Not Eligible	No
CA-IMP-007130	All-American Canal	Eligible for listing in the NRHP	No
CA-IMP-007835	East Highline Canal	Not Eligible	No
CA-IMP-008050	Historic-period refuse scatter; Precontact ceramic scatter	Not Eligible	No
None	Bridge #58-140	Not Eligible	No

Table 3.6-1. Previously Recorded Cultural Resources Within 1-Mile of the Project Area

Site No.	Description	NRHP/CRHR Eligibility	Within Project Area?
CA-IMP-008660	Historic-period refuse deposit	Not Eligible	Yes
None	International Border Monument #217	Not Eligible	No

Source: Appendix F of this EIR

The National Register Information System did not list any eligible or listed properties within the project area or one-mile vicinity. Additionally, no resources were identified as listed as California Historical Landmarks and by the OHP. One resource, the All-American Canal, has been previously evaluated as eligible for listing on the NRHP.

A search of historic General Land Office land patent records was also conducted and revealed nine historic-period resources in the project area. Additional details on these nine resources are provided in the Cultural Resources Inventory (Appendix F of this EIR).

Field Survey

Between October 5 and 12, 2020, a pedestrian survey was conducted on the project area under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties*. The pedestrian survey was conducted by walking north-south transects across all accessible portions of the property and examining both permeable and impermeable surfaces throughout. During the survey, exposed ground surfaces were 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.

The entire project area is currently undeveloped. However, large portions of the project area have previously been utilized for agriculture. Additionally, evidence of previous vegetation removal efforts is visible, and the eastern quarter of the project area has been staked out with surveyor’s lath. Minimally disturbed native surfaces exist in the western third of the project area. Visible soil is all native soils that are either periodically inundated, undisturbed, or disturbed by agricultural or vegetation removal activities within the project area.

One previously recorded resource was relocated and updated as part of this study and 16 newly identified cultural resources were found during the field survey (Table 3.6-2). Newly identified cultural resources comprise of pre-contact and historic-period resources.

Table 3.6-2. Updated and Newly Recorded Resources within the Project Area

Temporary or Primary No.	Age/Period	Description	NRHP Eligibility	CRHR Eligibility
P-13-009597	Historic	Refuse deposit	NE under all criteria	NE under all criteria
2020-142-001	Historic	Refuse deposit	TE under A, B, D	TE under 1, 2, and 4
2020-142-002	Historic	Refuse deposit	TE under A, B, D	TE under 1, 2, and 4
2020-142-004	Historic	Refuse deposit	TE under A, B, D	TE under 1, 2, and 4
2020-142-005	Pre-contact	Ceramic and lithic scatter	TE under D	TE under 4
2020-142-006-I	Pre-contact	Ceramic isolate	NE under all criteria	NE under all criteria
2020-142-007-I	Pre-contact	Ceramic and lithic isolate	NE under all criteria	NE under all criteria
2020-142-008	Pre-contact	Ceramic and lithic scatter with historic isolates	TE under D	TE under 4
2020-142-017-I	Pre-contact	Ceramic isolate	NE under all criteria	NE under all criteria
2020-142-018-I	Historic	Can isolate	NE under all criteria	NE under all criteria
2020-142-019	Pre-contact	Ceramic and lithic scatter	NE under all criteria	NE under all criteria
2020-142-020-I	Pre-contact	Lithic isolate	NE under all criteria	NE under all criteria
2020-142-021	Historic	Agricultural irrigation equipment	NE under all criteria	NE under all criteria
2020-142-022	Pre-contact	Ceramic and lithic scatter	NE under all criteria	NE under all criteria
2020-142-023-I	Pre-contact	Ceramic isolate	NE under all criteria	NE under all criteria
2020-142-024-I	Pre-contact	Lithic isolate	NE under all criteria	NE under all criteria
2020-142-025	Historic	Agricultural irrigation equipment	NE under all criteria	NE under all criteria

Source: Appendix F of this EIR
Notes: TE = Treated as Eligible; NE = Evaluated and Found Not Eligible

Historical Resources

Historical resources significant under CEQA include those designated or eligible for designation in the NRHP, the CRHR or other state program, or a local register of historical resources. Historical resources may also include resources listed in the State Historic Resources Inventory as significant at the local level or higher, and resources evaluated as potentially significant in a survey or other professional evaluation.

As shown in Table 3.6-2, a total of 17 cultural resources were identified within the project area: five historic-period sites, two pre-contact (prehistoric) sites, three multi-component sites (with pre-contact and historic-period elements), six pre-contact isolates, and one historic-period isolate.

As a result of the inventory and evaluations, out of the 17 total cultural resources identified within the project area, five cultural resources are being treated as eligible for the NRHP as historic properties under Section 106 and eligible for the CRHR as historical resources under CEQA. These five cultural resources are described in detail below, including a discussion of their NRHP and CRHR eligibility considerations. The NRHP and CRHR eligibility criteria are described below.

- **NRHP Eligibility Criteria.** Four criteria have been established to determine if a resource is significant to American history, architecture, archaeology, engineering, or culture and should be listed in the NRHP. These criteria include:
    A. It is associated with events that have made a significant contribution to the broad patterns of our history;
    B. It is associated with the lives of persons significant in our past;
    C. It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and
    D. It yields, or may be likely to yield, information important in prehistory or history.
- **CRHR Eligibility Criteria.** For the purposes of CEQA review, a historical resource is defined as follows (14 CCR 15064.5[a]):
    1. A resource listed in, or determined eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR)
    2. A resource included in a local register of historical resources
    3. A resource identified as significant in a historical resource survey meeting the requirements specified in PRC 5024.1(g)
    4. Any resource that the lead agency determines to be historically significant

Historic-Period Refuse Scatter: Site 2020-142-001

Site 2020-142-001 consists of historic-period refuse deposits in three distinct concentrations, measuring a total of 44 meters long and 29 meters wid. Within these concentrations, hundreds of glass and metal can fragments, boot heels, and a fragmented license plate were observed. Variations in makers marks within the concentrations suggest bottles were produced in the first half of the 20th century, some before the 1930s.

ELIGIBILITY CONSIDERATION

Archival research may reveal a connection between this site and an important event or person in history. Artifacts onsite suggest that there may be present archaeological deposits that are temporally diagnostic, which may be able to provide important information in history. This site is hereby being treated as eligible for NRHP, without testing, under Criteria A, B and D and for CRHR under Criteria 1, 2, and 4 for the purposes of this project alone.

Historic-Period Refuse Scatter: Site 2020-142-002

Site 2020-142-002 consists of historic-period metal and glass refuse in two concentrations, with additional refuse scattered between and around them measuring a total of 40 meters long and 32 meters wide. Artifacts consist primarily of domestic and personal consumption artifacts, such as miscellaneous metal fragments and cans, and colorless, cobalt, green, milk, amber, aqua, and amethyst glass. Ammunition casings of .45 Colt (also referred to as Long Colt) were observed on and within the vicinity of the site. A diagnostic glass bottle base located between the two concentrations dates to between 1906 and 1914.

Concentration 1 consists of more than 100 miscellaneous metal and can fragments, glass jar/bottle fragments, and glazed historic-period ceramic fragments. Diagnostic bottle bases within this concentration date between 1915 and 1929.

Concentration 2 is a smaller deposit consisting of similar glass and can fragments. A diagnostic bottle base within this concentration dates between 1934 to ca. 1968.

ELIGIBILITY CONSIDERATION

Archival research may reveal a connection between this site and an important event or person in history. Artifacts onsite suggest that there may be present archaeological deposits that are temporally diagnostic, which may be able to provide important information in history. This site is hereby being treated as eligible for NRHP, without testing, under Criteria A, B, and D and for CRHR under Criteria 1, 2 and 4 for the purposes of this project alone.

Historic-Period Refuse Scatter: Site 2020-142-004

Site 2020-142-004 consists of a single historic-period refuse deposit measuring 16 meters long by 12 meters wide. The site includes miscellaneous metals (non-diagnostic), glazed ceramics, approximately 75 crockery fragments, and fragments of various glass colors including at least 50 aqua, five green, over 150 colorless, 20 sun-colored amethyst, five cobalt, and two milk glass. Miscellaneous metals include .45 Colt casings and a brass belt buckle.

ELIGIBILITY CONSIDERATION

Archival research may reveal a connection between this site and an important event or person in history. Artifacts onsite suggest that there may be present archaeological deposits that are temporally diagnostic, which may be able to provide important information in history. This site is hereby being treated as eligible for NRHP, without testing, under Criteria A, B and D and for CRHR under Criteria 1, 2 and 4 for the purposes of this project alone.

Pre-Contact Ceramic and Lithic Scatter: Site 2020-142-005

Site 2020-142-005 consists of a pre-contact artifact scatter comprised of ceramic fragments, one lithic fragment, and one isolated historic-period glass bottle base, measuring 65 meters long by 65 meters

wide. Over 100 sherds of precontact ceramics were counted, three of which were rim sherds, including Greyware, buff, Tizon brown ware, and redware.

ELIGIBILITY CONSIDERATION

Several of the ceramic artifacts at this site may have temporally diagnostic markers that can be associated with a specific event or pattern of events marking an important moment in pre-contact history. This site is hereby treated as eligible for NRHP, without testing, under Criterion D and CRHR under Criterion 4 for the purposes of this project alone.

Pre-Contact Ceramic and Lithic Scatter and Historic-Period Isolate: Site 2020-142-008

This pre-contact site consists of six discrete concentrations (Concentration 1 through Concentration 6) of ceramic scatter and several lithic artifacts, located along a westward-facing terrace above the 11.9-meter (40-foot) elevation eastern shore of Lake Cahuilla. An approximate total of 300 ceramic sherds and 10 fragments of lithic debitage are present within this site. An isolated historic-period .30-06 cartridge case manufactured in the Twin Cities Ordnance Plant in 1942 was also identified within the site boundary. Overall, the site size measures 290 meters long and 105 meters wide.

ELIGIBILITY CONSIDERATION

Several of the ceramic artifacts at this site may have temporally diagnostic markers that can be associated with a specific event or pattern of events marking an important moment in pre-contact history. This site is hereby treated as eligible for NRHP, without testing, under Criterion D and CRHR under Criterion 4 for the purposes of this project alone.

3.6.2 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.[1]

(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.

[1] Ibid.

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:

  (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (HSC Section 7050.5).

  (2) 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:

  (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

    (A) The coroner or the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

    (B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the NAHC within 24 hours.
2. The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
3. 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

(2) 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.

(A) 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.

(B) The descendant fails to make a recommendation; or

(C) 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 3.11, Land Use Planning, of this EIR analyzes the 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 3.6-3.

Table 3.6-3. Project Consistency with Applicable General Plan Goals and Objectives

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element - *Open Space and Recreation Conservation* **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. **Objective 1.4** - Ensure the conservation and management of the County's natural and cultural resources.	Consistent	A cultural resources inventory was prepared for the project area. Known archaeological resources within the project area will be avoided and not impacted. However, as discussed below, the proposed project has the potential to encounter undocumented historical, archaeological resources, and human remains. Implementation of Mitigation Measure CR-1 would ensure avoidance of five historical resources on the project site. With implementation of Mitigation Measure CR-2, potential impacts to previously unrecorded cultural resources would be reduced to a level less than significant. Implementation of Mitigation Measure CR-3 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant. Mitigation Measure CR-4 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.
Objective 3.1 - Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Consistent	

Source: County of Imperial 1993
Notes:
CR=cultural resource

3.6.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering proposed project impacts related to cultural and archeological 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 proposed project, as described in Chapter 2, Project Description, to interact with cultural resources in the project 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 indicated in the environmental setting, a Cultural Resources Inventory (Appendix F of this EIR) was prepared for the project. The cultural resources inventory provides the results of a SCIC records search and a field survey which have been completed for the project area pursuant to CEQA.

The information from the cultural resources inventory 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 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 3.6-1 Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

To be considered historically significant, a resource must meet one of four criteria for listing outlined in the CRHR (CEQA Guidelines 15064.3 (a)(3)). In addition to meeting one of the criteria outlined the CRHR, a resource must retain enough intact and undisturbed deposits to make a meaningful data contribution to regional research issues (CCR Title 14, Chapter 1.5 Section 4852 [c]). Further, based on CEQA Guidelines Section 15064.5 (b), substantial adverse change 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 §5024.1(g), unless the public agency establishes by a preponderance of the evidence that the resource is not historically or culturally significant.

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

As a result of the inventory and evaluations, out of the 17 total cultural resources identified within the project area, the following five cultural resources are being treated as eligible for listing in the CRHR as historical resources under CEQA.

- Historic-Period Refuse Scatter: Site 2020-142-001 (CRHR Criteria 1, 2, and 4)
- Historic-Period Refuse Scatter: Site 2020-142-002 (CRHR Criteria 1, 2, and 4)
- Historic-Period Refuse Scatter: Site 2020-142-004 (CRHR Criteria 1, 2, and 4)
- Pre-Contact Ceramic and Lithic Scatter: Site 2020-142-005 (CRHR Criterion 4)
- Pre-Contact Ceramic and Lithic Scatter and Historic-Period Isolate: Site 2020-142-008 (CRHR Criterion 4)

The proposed project has been designed to avoid Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008. To ensure avoidance of Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008, Mitigation Measure CR-1 will be implemented. Mitigation Measure CR-1 requires the installation of orange environmentally sensitive area (ESA) fencing or flagging around the boundaries of each of the resources prior to any construction activity and shall

remain in place throughout project construction. The placement of the ESA flagging or fencing will be done under the supervision of a qualified archaeologist (to be retained by the project applicant). No project activity (including equipment staging, transportation, vegetation removal, or construction or other crews standing or walking) shall occur within the ESA boundaries of the sites. Implementation of Mitigation Measure CR-1 would reduce impacts on historical resources to a level less than significant.

Given the number of resources identified within the project area, there is a potential to unearth previously unknown cultural resources. In the event that unknown cultural resources are discovered during project construction, significant impacts could occur. However, with implementation of Mitigation Measure CR-2, potential impacts to previously unrecorded cultural resources would be reduced to a level less than significant.

ACCESS ROAD

During construction, vendors and heavy construction equipment would access the project site via Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing dirt road paralleling the U.S./Mexico Border. This existing dirt road is actively used by the U.S. Border Patrol during patrol operations. The use of this access road during construction is not anticipated to result in potential impacts on cultural resources because vehicles and construction equipment would be required to stay within the existing boundaries of the dirt road to avoid and/or minimize ground disturbance to undisturbed and vegetated areas. Furthermore, the project applicant would not make improvements to the existing dirt road except for the application of water for dust suppression. No grading or excavation would occur to the dirt road as a result of the project. Based on these considerations, the potential to impact cultural resources is considered low and a less than significant impact would occur.

Mitigation Measure(s)

CR-1 **Environmentally Sensitive Area Fencing.** Prior to issuance of grading permits and in coordination with a qualified archaeologist to be retained by the project applicant, the construction zone shall be narrowed or otherwise altered to avoid Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008. The area within 100 feet of Sites 2020-142-001, 2020-142-002, 2020-142-004, 2020-142-005, and 2020-142-008 shall be designated Environmentally Sensitive Area (ESA) and fenced or flagged with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts. The ESA fencing or flags shall remain in place throughout project construction.

CR-2 **Evaluate Significance of Find (Unknown Cultural Resources).** If subsurface deposits believed to be cultural 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 professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify

the Imperial County Planning and Development Services Department. The Imperial County Planning and Development Services Department shall consult with the professional archaeologist on a finding of eligibility and implement appropriate treatment measures if the find is determined to be an Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, or an Historic Property, as defined in 36 CFR 60.4. 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 site either: 1) is not an Historical Resource under CEQA or an Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

Impact 3.6-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

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 3.6-1. If an archaeological site does not meet any of the criteria outlined in the provisions under Impact 3.6-1 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.

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

Based on a review of historic aerial photographs and maps of the project area, the property was in use as agricultural land as early as 1953. Portions of the project area appear to have been used for agricultural purposes at varying times in photographs from 1953 to 1996. The property has undergone agricultural modification, tilling, and grading in past decades. These agricultural activities have likely heavily disturbed the surface and subsurface of the project area, destroying any intact potential prehistoric or historic-era cultural resources. The potential of finding a buried archaeological site during construction is considered low. However, like all construction projects in the state, the possibility exists. This potential impact is considered significant. Implementation of Mitigation Measure CR-3 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant.

ACCESS ROAD

During construction, vendors and heavy construction equipment would access the project site via Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing

dirt road paralleling the U.S./Mexico Border. This existing dirt road is actively used by the U.S. Border Patrol during patrol operations. The use of this access road during construction is not anticipated to result in potential impacts on archaeological resources because vehicles and construction equipment would be required to stay within the existing boundaries of the dirt road to avoid and/or minimize ground disturbance to undisturbed and vegetated areas. Furthermore, the project applicant would not make improvements to the existing dirt road except for the application of water for dust suppression. No grading or excavation would occur to the dirt road as a result of the project. Based on these considerations, the potential to impact archaeological resources is considered low and a less than significant impact would occur.

Mitigation Measure(s)

CR-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 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 3.6-3 Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

SOLAR ENERGY FACILITY, BATTERY STORAGE SYSTEM, AND GEN-TIE LINE

During the construction and operational phases of the proposed project, grading, excavation and trenching will be required. Although the potential for encountering subsurface human remains within the project site is low, there remains a possibility that human remains are present beneath the ground surface, and that such remains could be exposed during construction. The potential to encounter human remains is considered a significant impact. Mitigation Measure CR-4 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

ACCESS ROAD

During construction, vendors and heavy construction equipment would access the project site via Gordon Wells Road approximately 20 miles east of the project site, then travel west along an existing dirt road paralleling the U.S./Mexico Border. This existing dirt road is actively used by the U.S. Border Patrol during patrol operations. The use of this access road during construction is not anticipated to result in potential impacts on archaeological resources because vehicles and construction equipment would be required to stay within the existing boundaries of the dirt road to avoid and/or minimize ground disturbance to undisturbed and vegetated areas. Furthermore, the project applicant would not

make improvements to the existing dirt road except for the application of water for dust suppression. No grading or excavation would occur to the dirt road as a result of the project. Based on these considerations, the potential to encounter human remains is considered low and a less than significant impact would occur.

Mitigation Measure(s)

CR-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.

3.6.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

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 Measure CR-1 would reduce potential impacts on historical resources to a level less than significant. With implementation of Mitigation Measure CR-2, potential impacts to previously unrecorded cultural resources would be reduced to a level less than significant. Implementation of Mitigation Measure CR-3 would reduce the potential impact associated with the

inadvertent discovery of archaeological resources to a level less than significant. Mitigation Measure CR-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.

3.7 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 Preliminary Geological and Geotechnical Hazard Evaluation Report prepared by HDR. This report is included as Appendix G of this EIR.

3.7.1 Existing Conditions

Regional Geology

The project site is located in Imperial County in the Salton Trough portion of the Colorado Desert physiographic province. The Salton Trough is a topographic and geologic structural depression resulting from large scale regional faulting. The trough is bounded on the east and northeast by the San Andreas Fault and of the west by the San Jacinto Fault Zone. The Salton Trough represents the northward extension of the Gulf of California and contains more than 15,000 feet of Miocene and younger, marine and non-marine sediments capped by approximately 100 feet of Pleistocene and later lacustrine deposits as a result of intermittent filling derived from periodic flooding of the Colorado River and Lake Cahuilla (Appendix G of this EIR). Tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity.

The geologic conditions present within the County contribute to a wide variety of hazards that can result in loss of life, bodily injury, and property damage. The primary seismic hazard at the project site is the potential for strong ground shaking. The project site is located within a highly active seismic zone. The nearest active major fault that poses a risk contribution of greater than 1 percent is the Imperial Fault, located approximately 2.36 miles (3.8 kilometers) west of the project site.

Surface Subgrade Soils and Groundwater Conditions

The project site is generally underlain by stratified alluvial deposits, predominately consisting of interbedded layers of silt, sand, and clay. The near-surface soils are predominantly comprised of very fine to fine sand and occasionally clay and silty clay (Appendix G of this EIR). As shown on Figure 3.7-1, soil series mapped on the project site include:

- 102 – Badland
- 119 – Indio-Vint complex
- 126 – Niland fine sand
- 131 – Rositas sand, 2 to 5 percent slope
- 132 – Rositas fine sand, 0 to 2 percent slopes
- 135 – Rositas fine sand, wet, 0 to 3 percent slopes
- 136 – Rositas loamy fine sand, 0 to 3 percent slopes
- 142 – Vint loamy very fine sand, wet

There are no known groundwater wells within a one-mile radius of the project site (Appendix G of this EIR).

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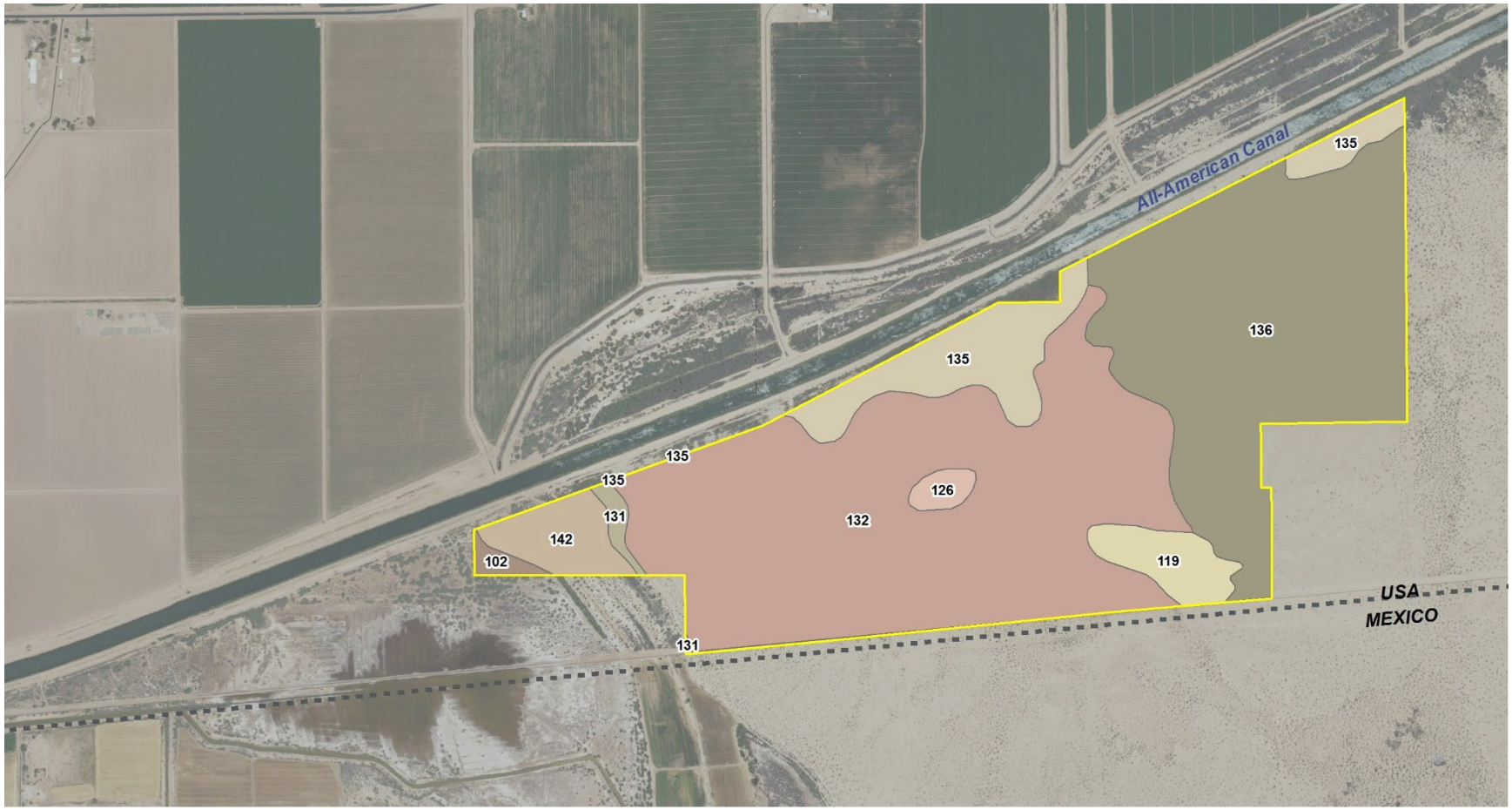
Figure 3.7-1. Soils Mapped on the Project Site



Legend

- Project Boundary
- 102 - Badland
- 119 - Indio-Vint complex
- 126 - Niland fine sand
- 131 - Rositas sand, 2 to 5 percent slopes
- 132 - Rositas fine sand, 0 to 2 percent slopes
- 135 - Rositas fine sand, wet, 0 to 2 percent slopes
- 136 - Rositas loamy fine sand, 0 to 2 percent slopes
- 142 - Vint loamy very fine sand, wet

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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.

Southern California straddles the boundary between two global tectonic plates known as the North American Plate (on the east) and the Pacific Plate (on the west). The main plate boundary is represented by the San Andreas Fault, which extends northwest from the Gulf of California in Mexico, through the desert region of the Imperial Valley, through the San Bernardino region, and into Northern California, where it eventually trends offshore, north of San Francisco (Appendix G of this EIR).

In Southern California, the plate boundary is a complex system of numerous faults known as the San Andreas Fault System that spans a 150-mile-wide zone from the main San Andreas fault in the Imperial Valley westward to offshore of San Diego (Appendix G of this EIR).

The project site is located in the seismically active Southern California region, with numerous mapped faults traversing the region including the San Andreas, San Jacinto, and Elsinore Fault Zones. Under the current understanding of regional seismology and tectonics, the largest maximum earthquake to impact the project site would most likely be generated by the Imperial Fault (fault strand 5), which has an estimated maximum magnitude (M) of 7.3. Table 3.7-1 lists faults with a risk contribution greater than 1 percent at the project site (Appendix G of this EIR). Figure 3.7-2 identifies faults within the project region.

Table 3.7-1. Faults with a Risk Contribution of Greater than One Percent

Fault Name	Approximate Distance from Project Site (km)	Maximum Magnitude (M)
Imperial Fault [5]	3.8	7.3
Imperial Fault [6]	5.9	7.0
Imperial Fault [7]	10.4	6.9

Source: Appendix G of this EIR
Notes:
km=kilometers; M=Maximum magnitude; [] Fault strand

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.

As the project site is located in the seismically active southern California region, strong ground shaking can be expected at the project site during moderate to severe earthquakes in the general region.

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.

The California Geologic Survey (CGS) established criteria for faults as active, potentially active, and inactive. Active faults are those that show evidence of surface displacement within the last 11,000 years (Holocene age). Potentially active faults are those that demonstrate displacement within the past 1.6 million years (Quaternary age). Faults showing no evidence of displacement within the last 1.6 million years may be, in general, considered inactive for most structures, except for critical structures (Appendix G of this EIR).

In 1972 the Alquist-Priolo Special Studies Earthquake Hazards Act (APEHA) was passed, which required fault studies within 500 feet of active or potentially active faults. The APEHA designates “active” and “potentially active” faults utilizing the same age criteria as that used by the CGS. The project site is not located within a currently mapped APEHA zone. As previously mentioned above, the nearest active major fault is the Imperial fault located approximately 2.3 miles west of the project site (Appendix G of this EIR). Based on this distance, the potential for surface fault rupture to occur on the project site is considered low.

Liquefaction

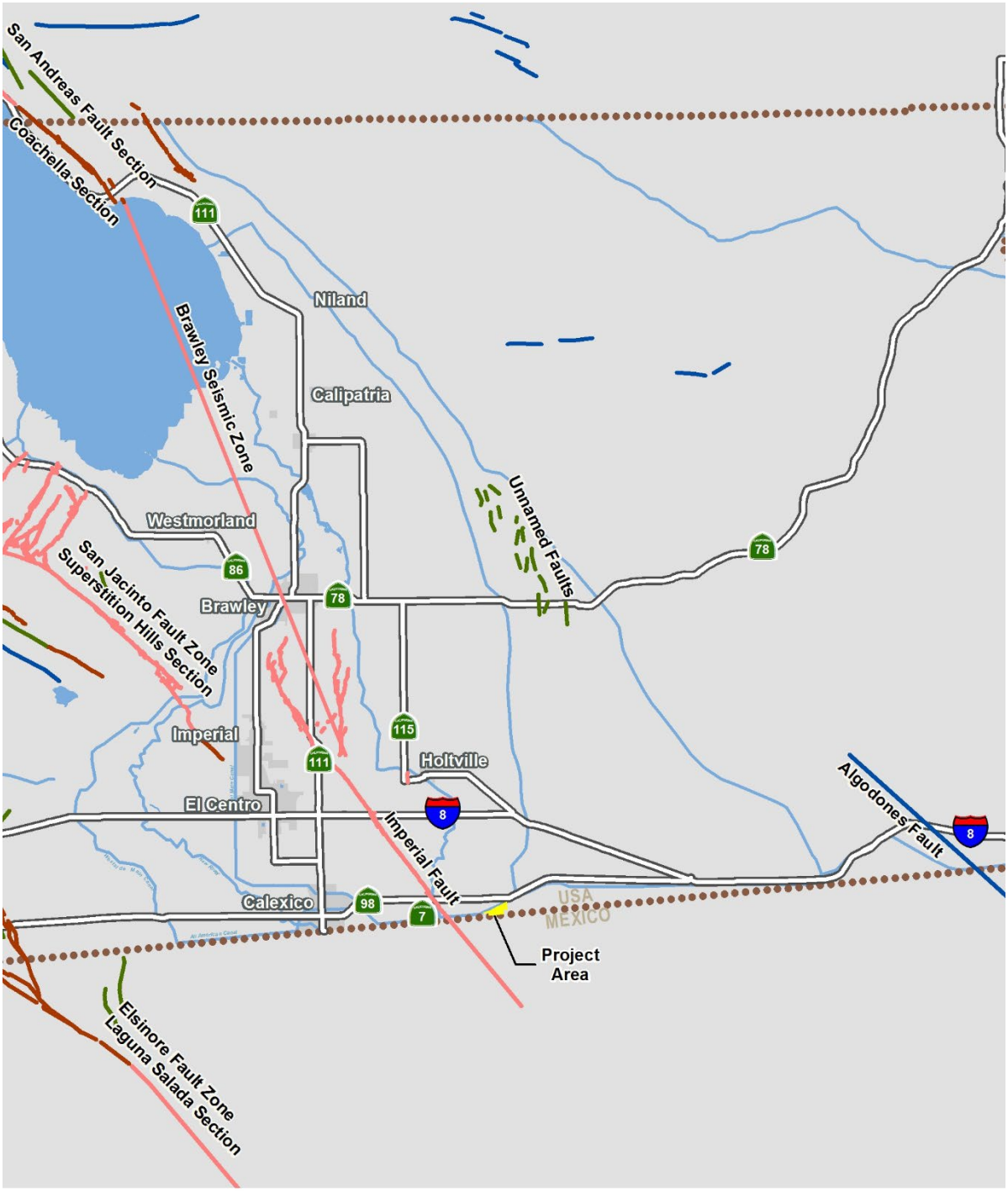
Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as those produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to 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). The factors known to influence liquefaction potential include soil type, relative density, grain size distribution, confining pressure, depth to groundwater, and the intensity and duration of the seismic ground shaking. Liquefaction is most prevalent in loose- to medium-dense, silty, sandy, and gravelly soils below the groundwater table.

The project site has not been mapped for liquefaction potential by CGS (Appendix G of this EIR).

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. The project site is relatively flat. Due to the existing topography, landslides are not considered a potential hazard for the project (Appendix G of this EIR).

Figure 3.7-2. Regional Fault Map



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. As cracks develop within the weakened material, blocks of soil displace laterally toward the open face. Cracking and lateral movement may gradually propagate away from the face as blocks continue to break free. It is unknown whether lateral spreading is a potential hazard on the project 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.

The project site is not located in an area of known ground subsidence or within any delineated zones of subsidence due to groundwater pumping or oil extraction. As such, the potential for subsidence at the project site is considered low (Appendix G of this EIR).

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. The project site is underlain by sand, gravelly sand and clay/silty clay. Generally, sands are considered not expansive while soils and clays may exhibit moderate to high expansion potential due to variation in moisture content (Appendix G of this EIR).

Collapsible Soils

Collapsible soil is generally defined as soil that will undergo a sudden decrease in volume and its internal support is lost under applied loads when water is introduced into the soil. The internal support is considered to be a temporary strength and is derived from a number of sources including capillary tension, cementing agents, e.g. iron oxide and calcium carbonate, clay-welding of grains, silt bonds, clay bonds and clay bridges. Soils found to be most susceptible to collapse include loess (fine grained wind-deposited soils), valley alluvium deposited within a semi-arid to arid climate, and residual soil deposits. It is unknown whether collapsible soils are present on the project site.

Corrosive Soils

Corrosive soils can damage underground utilities including pipelines and cables, or weaken roadway structures. Generally, fine grained soils like clays are more likely to be corrosive (Appendix G of this EIR). Fine grained and potentially corrosive soils are expected to be encountered at the project site.

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.

The project site is in the Salton Basin near the shoreline of ancient Lake Cahuilla. The lake covered much of the Imperial Valley and created an extensive lacustrine environment. Lake Cahuilla experienced several fill recession episodes before it finally dried up about 300 years ago. In 1905, the Colorado River overflowed into the Salton Basin creating the present-day Salton Sea. As previously mentioned above, the project site is generally underlain by deposits from periodic flooding of the Colorado River and Lake Cahuilla (Appendix G of this EIR). Sediments from this formation have yielded fossilized remains of continental vertebrates, invertebrates, and plants at numerous previously recorded fossil sites in the Imperial Valley. Therefore, the project site is considered paleontologically sensitive.

3.7.2 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.

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 3.7-2 analyzes the consistency of the project with specific policies contained in the County of Imperial General Plan associated with geology, soils, and seismicity. While this EIR analyzes the 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 3.7-2. Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	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 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. 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 0.50 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. A preliminary geotechnical report has been prepared for the proposed project. The preliminary geotechnical report 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.
Objective 1.1. Ensure that data on geological hazards is incorporated into the land use review process, and future development process.		
Objective 1.3. Regulate development adjacent to or near all mineral deposits and geothermal operations.		
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

3.7.3 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:
    - 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)
    - Strong seismic ground shaking
    - Seismic related ground failure, including liquefaction
    - 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 in 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

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description, to interact with local geologic and soil conditions on the project site. A preliminary geological and geotechnical hazard evaluation report was prepared for the project. The information obtained from the report was reviewed and summarized to present the existing geologic and soil conditions on 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.

Impact Analysis

Impact 3.7-1 Would the project directly or indirectly cause potential substantive adverse effects, including the 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)?

As previously discussed above, the project site is located in the seismically active Imperial Valley of southern California with several mapped faults of the San Andreas Fault System traversing the region. As shown in Table 3.7-1, the project site is not located on an active fault. Furthermore, no portion of the project site is within a designated APEHA zone, and, therefore, the potential for ground rupture to occur within the project site is considered unlikely. Based on these considerations, the project would not directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. This is considered a less than significant impact.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.7-2 Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:

Strong seismic ground shaking?

As previously discussed above, the closest mapped fault to the project site is the Imperial Fault (fault strand 5), located approximately 2.36 miles west. 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, 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, implementation of Mitigation Measure GEO-1, which requires preparation of a design-level geotechnical report, would reduce the potential impacts associated with ground shaking to a level less than significant.

Mitigation Measure(s)

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.

Significance after Mitigation

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 3.7-3 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?

As previously discussed above, the factors known to influence liquefaction potential include soil type, relative density, grain size distribution, confining pressure, depth to groundwater, and the intensity and duration of the seismic ground shaking. Liquefaction is most prevalent in loose- to medium-dense, silty, sandy, and gravelly soils below the groundwater table. The project site has not been mapped for liquefaction potential by CGS (Appendix G of this EIR). However, given that the project site is underlain by sand and clay, there is a potential for liquefaction to occur on the project site. Additional geotechnical investigation would be required in order to assess the risk of liquefaction on the project site. The potential impact on liquefaction is considered a significant impact**.** Implementation of Mitigation Measure GEO-1, which requires the preparation of a design-level geotechnical report, would reduce the potential impact associated with liquefaction to a level less than significant.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure GEO-1 are required.

Impact 3.7-4 Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:

Landslides?

As stated above, the project site has a relatively flat topographic gradient. Therefore, the 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.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.7-5 Would the project result in substantial soil erosion or the loss of topsoil?

During the site grading and construction phases, large areas of unvegetated soil would be exposed to erosive forces by water for extended periods of time due to ICAPCD dust suppression requirements. Unvegetated soils are much more likely to erode from precipitation than vegetated areas because plants act to disperse, infiltrate, and retain water. Construction activities involving soil disturbance, excavation, cutting/filling, stockpiling, and grading activities could result in increased erosion and sedimentation to surface waters. Construction could 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.

As provided in Mitigation Measure GEO-1, during final engineering for the project, a design-level geotechnical study would identify appropriate measures for the project related to soil erosion. In addition, as part of Mitigation Measure HYD-1 provided in Section 3.10 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 for sediment and erosion control and implementation of BMPs to reduce erosion from the construction site.

The 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 3.10 Hydrology/Water Quality, impacts from construction-related erosion would be reduced to a level less than significant.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure GEO-1 and Mitigation Measure HYD-1 are required.

Significance after Mitigation

With implementation of Mitigation Measure GEO-1 and Mitigation Measure HYD-1 in Section 3.10 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.

Impact 3.7-6 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?

The potential for lateral spreading to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of lateral spreading to occur on the project site. The potential impact associated with lateral spreading is considered a significant impact**.**

The project site is not located in an area of known ground subsidence or within any delineated zones of subsidence due to groundwater pumping or oil extraction. The potential for subsidence to occur on the project site is considered low. Therefore, the proposed project would result in a less than significant impact associated with ground subsidence.

As described above, given that the project site is underlain by sand and clay, there is a potential for liquefaction to occur on the project site. Additional geotechnical investigation would be required in order to assess the risk of liquefaction on the project site. The potential impact on liquefaction is considered a significant impact**.**

It is unknown whether collapsible soils are present on the project site. Additional geotechnical investigation would be required in order to assess the risk of collapsible soils to occur on the project site. The potential impact associated with collapsible soils is considered a significant impact**.**

Implementation of Mitigation Measure GEO-1, which requires the preparation of a design-level geotechnical report, would reduce the potential impacts associated with lateral spreading, liquefaction, and collapsible soils to a level less than significant.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure GEO-1 are required.

Impact 3.7-7 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?

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. The project site is underlain by sand, gravelly sand and clay/silty clay. Generally, sands are not considered expansive soils. However, clays may exhibit moderate to high expansion potential due to variation in moisture content. 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. In addition, the on-site soils, particularly clay /silty clay, are known to be corrosive. Corrosive soils can damage underground utilities including pipelines and cables, or weaken roadway structures. A site-specific geotechnical investigation would be required at the project site to determine the extent and effect of problematic soils. I Implementation of Mitigation Measure GEO-1, which requires the preparation of a design-level

geotechnical report, would reduce potential impacts associated with expansive and corrosive soils to a level less than significant.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure GEO-1 are required.

Impact 3.7-8 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?

The proposed 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 project and no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.7-9 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As stated above, the project site is in the Salton Basin near the shoreline of ancient Lake Cahuilla. The lake covered much of the Imperial Valley and created an extensive lacustrine environment. Lake Cahuilla experienced several fill recession episodes before it finally dried up about 300 years ago. In 1905, the Colorado River overflowed into the Salton Basin creating the present-day Salton Sea. As previously mentioned above, the project site is generally underlain by deposits from periodic flooding of the Colorado River and Lake Cahuilla (Appendix G of this EIR). Sediments from this formation have yielded fossilized remains of continental vertebrates, invertebrates, and plants at numerous previously recorded fossil sites in the Imperial Valley. Therefore, the project site is considered paleontologically sensitive.

Although unlikely, 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.

Mitigation Measure(s)

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.

Significance after Mitigation

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.

3.7.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

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, liquefaction, lateral spreading, collapsible soils, 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 3.10 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.

3.8 Greenhouse Gas Emissions

This section includes an overview of existing greenhouse gas (GHG) emissions within the project area and identifies applicable federal, state, and local policies 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. ECORP Consulting, Inc. prepared an *Air Quality and Greenhouse Gas Assessment* that assesses the climate change impacts of the VEGA SES 4 Solar Energy Project. This report is included in Appendix C of this EIR.

3.8.1 Existing Conditions

Greenhouse Gases

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHGs, particularly those generated from the production and use of fossil fuels.

GHGs refer to atmospheric gases that absorb solar radiation and subsequently emit radiation in the thermal infrared region of the energy spectrum, trapping heat in the Earth's atmosphere. These gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and water vapor, among others. While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy.

The dominant GHG emitted is CO_2, mostly from fossil fuel combustion. GHGs differ in how much heat each can trap in the atmosphere (i.e., global warming potential [GWP]). When accounting for GHGs, all types of GHG emissions are expressed in terms of carbon dioxide equivalent (CO_2e) and are typically quantified in metric tons (MT) or million metric tons. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is expressed relative to CO_2 over a specified time period. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (Appendix C of this EIR). State law defines GHGs as any of the following compounds CO_2, CH_4, N_2O, hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6) (California HSC Section 38505(g)).

CO_2 is a colorless, odorless gas consisting of molecules made up of two oxygen atoms and one carbon atom. CO_2 is produced when an organic carbon compound, such as wood, or fossilized organic matter, such as coal, oil, or natural gas, is burned in the presence of oxygen. CO_2 is removed from the atmosphere by CO_2 "sinks", such as absorption by seawater and photosynthesis by ocean dwelling plankton and land plants, including forests and grasslands; however, seawater is also a source of CO_2 to the atmosphere, along with land plants, animals, and soils, when CO_2 is released during respiration. Whereas the natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood.

CH_4 is a colorless, odorless non-toxic gas consisting of molecules made up of four hydrogen atoms and one carbon atom. CH_4 is combustible, and it is the main constituent of natural gas-a fossil fuel. CH_4 is released when organic matter decomposes in low oxygen environments. Natural sources include wetlands, swamps and marshes, termites, and oceans. Human sources include the mining of fossil fuels and transportation of natural gas, digestive processes in ruminant animals, such as cattle, rice paddies and the buried waste in landfills. Over the last 50 years, human activities, such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

N_2O is a colorless, non-flammable gas with a sweetish odor, commonly known as "laughing gas", and sometimes used as an anesthetic. N_2O is naturally produced in the oceans and in rainforests. Man-made sources of N_2O include the use of fertilizers in agriculture, nylon and nitric acid production, cars with catalytic converters and the burning of organic matter. Concentrations of N_2O also began to rise at the beginning of the industrial revolution.

Chlorofluorocarbons (CFC) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically un-reactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Because of the discovery that they are able to destroy stratospheric ozone (O_3), an ongoing global effort to halt their production was undertaken and has been extremely successful, so much so that levels of the major CFCs are now remaining steady or declining; however, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

HFCs are synthesized chemicals that are used as a substitute for CFCs. Out of all of the GHGs; HFCs are one of three groups with the highest GWP. HFCs are synthesized for applications, such as automobile air conditioners and refrigerants.

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

SF_6 is an extremely potent GHG. SF_6 is very persistent, with an atmospheric lifetime of more than 1,000 years. Thus, a relatively small amount of SF_6 can have a significant long-term impact on global climate change. SF_6 is human-made, and the primary user of SF_6 is the electric power industry. Because of its inertness and dielectric properties, it is the industry's preferred gas for electrical insulation, current interruption, and arc quenching (to prevent fires) in the transmission and distribution of electricity. SF_6 is used extensively in high voltage circuit breakers and switchgear, and in the magnesium metal casting industry.

Statewide Greenhouse Gas Emissions Inventory

In 2020, CARB released the 2020 edition of the California GHG inventory covering calendar year 2018 emissions. In 2018, California emitted 425.3 million gross metric tons of CO_2e including from imported electricity. The current inventory covers the years 2000 to 2018 and is summarized in Table 3.8-1. 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 3.8-1, combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2018, accounting for approximately 30 percent of total GHG emissions in the state.

Table 3.8-1. California Greenhouse Gas Emissions Inventory 2000 to 2018

Sector	Total 2000 Emissions ($MMTCO_2e$)	Total 2018 Emissions ($MMTCO_2e$)
Agriculture	30.97	32.57
Commercial and Residential	43.95	41.37
Electric Power	104.75	63.11
Industrial	96.18	89.18
Transportation	178.40	169.50
Recycling and Waste	7.67	9.09
High GWP Gases	6.28	20.46

Source: CARB 2020
Notes:
GWP=global warming potential; $MMTCO_2e$=million metric tons of CO_2 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).

3.8.2 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 (NGO) 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 (PSD) 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 – Statewide Greenhouse Gas Emissions Targets

On June 1, 2005, the Governor issued EO S-3-05 which set the following GHG mission reduction targets:

- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

This EO directed the secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual biennial reports on the progress made toward meeting the targets and on the impacts on California related to global warming. The first such Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years thereafter. This goal was further reinforced with the passage of AB 32 in 2006 and SB 32 in 2016.

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 32 – 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.

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.

Senate Bill 100

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 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.

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 (UNFCCC), 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 3.4, 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.

3.8.3 Impacts and Mitigation Measures

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.

Mojave Desert Air Quality Management District's Interim Thresholds

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, the projected emissions are compared to the Mojave Desert Air Quality Management District (MDAQMD) numeric threshold of 100,000 metric tons of CO_2e annually.

While significance thresholds used in the Mojave Desert Air Basin are not binding on the ICAPCD or County of Imperial, they are instructive as a comparative metric of the project's potential GHG impact. This threshold is also appropriate as the MDAQMD GHG thresholds were 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.

Methodology

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 3.4 Air Quality. Where GHG emission quantification was required, emissions were modeled 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. Project construction-generated GHG emissions were calculated using CalEEMod model defaults for Imperial County coupled with information provided by the project applicant. For instance, 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. Construction is estimated to take 12-18 months and would begin in late 2022 or 2023. The number of on-site construction workers for the solar facility is not expected to exceed 150 workers at any time. The number of on-site construction workers for the BESS and substation is not expected to exceed 100 workers at any one time. According to the Traffic Impact Study prepared for the project (Appendix K of this EIR), project construction would generate a maximum of 500 construction worker-commute trips in a single day.

Operational GHG emissions account for the maximum three workers visiting the site in a single day. Such visits 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. Therefore, operational onsite equipment use is accounted in addition to the consumption of 10 acre-feet (3,259,000 gallons) of water annually.

Impact Analysis

Impact 3.8-1 Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction and operation of the project would result in a relatively small amount of GHG emissions. The project would generate GHG emissions during construction and routine operational activities at the project site.

Construction. Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3.8-2 shows the specific construction generated GHG emissions that would result from construction of the project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3.8-2. Project Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (metric tons/year)
Construction Year One	913
Construction Year Two	611
MDAQMD Significance Threshold	100,000
Exceed MDAQMD's Significance Threshold?	**No**

Source: Appendix C of this EIR

As shown in Table 3.8-2, the project would result in the generation of approximately 913 metric tons of CO_2e in the first calendar year of construction and 611 metric tons in the second calendar year of construction. Therefore, the construction emissions are less than the MDAQMD's screening threshold of 100,000 $MTCO_2e$ per year. As previously described, this significance threshold is not binding on the project, yet in the absence of an established threshold from the ICAPCD or County it is instructive for comparison purposes. This threshold is also appropriate for use in this analysis as the MDAQMD GHG thresholds were formulated based on similar geography and climate patterns as found in Imperial County.

Operation. Once the project is constructed and operational, the proposed project would have no major stationary emission sources and would require minimal vehicular trips. Therefore, operation of the proposed solar facility would result in substantially lower emissions than project construction. Long-term GHG emissions attributed to operations of the project are identified in Table 3.8-3. As shown in Table 3.8-3, operational-generated emissions would generate approximately 1,194 metric tons of CO_2e annually. Therefore, the proposed project's operational emissions are less than the MDAQMD's screening threshold of 100,000 $MTCO_2e$ per year. As shown in Table 3.8-3, the majority of emissions are attributable to indirect energy consumption. The BESS component of the project was modeled to account for HVAC use. However, this is potentially a conservative estimate since the energy source

for the BESS HVAC could include the solar energy generated by the project itself, which would be an emissions-free source of energy. Impacts would be less than significant.

Table 3.8-3. Project Operation-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (metric tons/year)
Area Source	0
Energy	1,088
Mobile	7
Off-Road Equipment	8
Waste	82
Water	8
Total	**1,194**
MDAQMD Significance Threshold	100,000
Exceed MDAQMD's Significance Threshold?	**No**

Source: Appendix C of this EIR

Additionally, the project proposes a solar energy generation facility intended to generate renewable energy. Solar plants generate far less GHG life-cycle emissions (approximately 83 to 94 percent less) than fossil-fueled energy plants. The proposed 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 project would generate a maximum of four MW of electricity at any one time. Table 3.8-4 shows the emissions that would potentially be displaced by the proposed project. As shown in Table 3.8-4, the proposed project would potentially displace approximately 53,210 $MTCO_2e$ per year, and approximately 1,596,596 $MTCO_2e$ over the course of 30 years. The proposed project's annual indirect GHG emissions from the displacement of fossil fuel fired electricity generation is significantly higher than the project's annualized direct and indirect emissions sources. Implementation of the proposed project would result in a less than significant impact associated with the generation of GHG emissions.

Table 3.8-4. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_20	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural-Gas Source Emissions	47,585	0.00	0.00	47,585
Displaced Coal-Source Emissions	5,626	0.037	0.028	5,635
Total	**53,210**	**0.037**	**0.028**	**53,220**
Emissions Displaced over 30 Years (metric tons)				
Total	**1,596,309**	**1.118**	**0.838**	**1,596,596**

Source: Appendix C of this EIR

*Notes: In order to provide a conservative analysis, the proposed 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) × 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 and unspecified nonrenewable sources 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.*

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.8-2 Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

As discussed in Impact 3.8-1, the proposed project would generate a relatively small amount of GHG emissions. The proposed project-generated GHG emissions would not exceed the MDAQMD significance thresholds, which were prepared with the purpose of complying with statewide GHG-reduction efforts. While the 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 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.

Implementation of the proposed project would result in a less than significant impact associated with the potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHG.

Mitigation Measure(s)

No mitigation measures are required.

3.8.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

Similar to construction activities, decommissioning and restoration would result in GHG emissions below allowable thresholds. Construction activities during decommissioning and restoration would adhere to Mitigation Measures AQ-1 and AQ-2 outlined in Section 3.4, Air Quality of this EIR, further reducing GHG emissions. Therefore, the impact is considered less than significant.

Residual

The proposed project's GHG emissions would result in a less than significant impact. Project operation, subject to the provision of a CUP, 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.

3.9 Hazards and Hazardous Materials

Information contained in this section is summarized from the Phase I Environmental Site Assessment (ESA) prepared for the project by GS Lyon Consultants, Inc. The Phase I ESA prepared for the project site was used to assess the potential hazards and hazardous materials found on-site or adjacent to the project site. This report is included in Appendix H of this EIR. This section addresses potential hazards and hazardous materials for construction and operational impacts.

3.9.1 Existing Conditions

The project site is located on approximately 450 acres of privately-owned agriculturally-zoned land within unincorporated Imperial County that is not currently under cultivation. The boundaries of the project site include the All-American Canal forming the northern boundary, the U.S./Mexico international border forming the southern boundary, and undeveloped desert land forming the eastern boundary. The project site is currently characterized by flat and undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities.

A farmyard is located in the north-central portion of the project site. A small masonry building housing water pumps, an above ground fuel storage tank (AST) and a storage building, all located within a chain-link fenced area comprise the farmyard. A small equipment storage area with a disc, a trap wagon, and other miscellaneous farm equipment is also located northeast of the farmyard area. Two central-pivot sprinklers are located in the central portion of the project site.

Records Review

A review of historic aerial photographs, historic topographic maps, historic Sanborn Fire Insurance maps, governmental regulatory databases, and other regulatory and agency databases was performed to evaluate potential adverse environmental conditions resulting from previous ownership and uses of the project site.

GS Lyon Consultants, Inc. contracted Environmental Data Resources, Inc. 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 American Society of Testing and Materials Practice E 1527-13. The search of each database was conducted using the approximate minimum search distances from the subject property defined by the Standard. The purpose of the records review is to obtain and review reasonably ascertainable records that would help identify recognized environmental conditions or historical recognized environmental conditions in connection with the project site. The project site is not identified in the Environmental Data Resources, Inc. report as being located on a hazardous materials site pursuant to Government Code Section 65962.5. The results of the background review are presented in the Phase I ESA (Appendix H of this EIR).

Historical aerial photographs from EDR dating back to 1937 and Google Earth aerial photographs from 1996 were reviewed. In 1937, the western portion of the subject site appears to have been fallow agricultural field while the eastern portion was vacant desert land and newly constructed All-American Canal is to the north of the project site. In 1953, the canals that crossed the All-American Canal had been removed leaving a heavily brushed area in the western portion of the project site.

The 1985 aerial photograph shows a circular agricultural area occupying the eastern portion of the project site. The 1996 to 2010 aerial photographs are similar to the 1985 aerial photograph; however, several small structures are noted in the area of the farmyard in the northcentral portion of the project site. The 2018 aerial photograph shows the subject site as being similar to the present time with the agricultural fields have been fallowed.

Site Reconnaissance

A site reconnaissance was performed on September 22, 2020. The site visit consisted of a driving the perimeter of the project site and randomly crossing the project site. The reconnaissance included visual observations of surficial conditions at the project site and observation of adjoining properties to the extent that they were visible from public areas. The site visit evaluated the project site and adjoining properties for potential hazardous materials/waste and petroleum product use, storage, disposal, or accidental release, including 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.

Underground and Aboveground Storage Tanks, Drums, or Containers

No underground storage tanks (USTs) were observed within the project site during the site reconnaissance. One AST was observed within the fenced farmyard; however access to the tank was not available at the time to determine fuel containment. Several steel 55-gallon drums were observed on the project site and no fluids were observed in the drums that were accessible. No other drums or storage containers, nor any open or damaged containers containing unidentified substances were observed at the project site. Additionally, no reports of spills or leaks were identified in the EDR report.

Surface Staining

No evidence of stained soil or pavement was observed on the project site.

Sewer/Water

No evidence of septic systems or wells was observed on the project site.

Suspect Polychlorinated Biphenyl (PCB)Containing Equipment

Pole-mounted sealed electrical transformers owned and maintained by the IID are located on the embankment of the All-American Canal adjacent to the farmyard of the project site. However, the IID has replaced all transformers that contained PCBs within recent years. Stickers were observed on the transformers that indicated that they had been tested for PCBs. No leaks were observed during the site reconnaissance.

Pesticides

Based on the review of environmental records, historical documents, and site conditions, the project site has been in agricultural use and/or vacant since the 1930s. Residues of currently available pesticides and currently banned pesticides, such as Dichlorodiphenyltrichloroethane/ Dichlorodiphenyldichloroethylene (DDT/DDE) may be present in near surface soils in limited concentrations.

Therefore, there is a potential for the project site to contain hazards related to pesticide and herbicide use from aerial and/or ground application which can migrate via surface run-off. The concentrations of these pesticides found on other Imperial Valley agricultural sites are typically less than 25 percent of the current regulatory threshold limits and are not considered a significant environmental hazard. The presence and concentration of near surface pesticides at the project site can be accurately characterized only by site-specific sampling and testing.

Lead and Asbestos

The potential for asbestos containing materials (ACM) and lead based paint residues existing at the project site is low due to the lack of structures other than the small masonry structure housing water pumps at the farmyard.

Airports

The project site is not located within 2 miles of a public airport or a public use airport. The nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to the Imperial County Airports Department, the Holtville Airport is currently closed.

Fire Hazard

The project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial 1997).

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

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 11001 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 OHSA 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

Hazardous Materials and Medical Waste Management

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.

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.

3.9.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project-related impacts related to hazards and hazardous materials, the methodology employed for the 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.

A Phase I ESA has been prepared for the project site. The information obtained from the Phase I ESA was reviewed and summarized to present the existing conditions, in addition to identifying potential environmental impacts, based on the significance criteria presented above. Impacts associated with hazards and hazardous 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 (Figure 2-3) for the project was also used to evaluate potential impacts.

Impact Analysis

Impact 3.9-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Although considered minimal, it is anticipated that the proposed 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 necessitate, 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 Office of Emergency Services, 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 Office of Emergency Services, DTSC, OSHA regulatory requirements and CUPA, the impact associated with the possible risk to the public or environment through routine transport, use, or disposal of hazardous materials would be considered less than significant.

Battery Energy Storage System

In conjunction with the construction of the solar facility, a 100 MW battery ESS will be constructed to store the energy generated by the solar panels on the northern boundary of APN 059-300-015. Transportation of hazardous materials relating to the battery ESS 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 2021). 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.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.9-2 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?

According to the historical records search, the project site has been in agricultural use and/or vacant since the 1930s. Typical agricultural practices in the Imperial Valley consist of aerial and ground application of pesticides and the application of chemical fertilizers to both ground and irrigation water. GS Lyon professionals have reported that concentrations of pesticides are limited and typically less than 25 percent of the current regulatory threshold limits of EPA preliminary remediation goals.

The Federal Insecticide, Fungicide, and Rodenticide Act provides federal control of pesticide distribution, sale, and use. Pesticides used in the United States must be registered by the EPA to assure that pesticides are properly labeled and that they will not cause unreasonable harm to the environment. The construction phase, operations and long-term maintenance of the facility would not result in additional application of pesticides or fertilizers. Therefore, a less than significant impact has been identified for this issue area.

Hazardous Materials

The Phase I ESA (Appendix H of this EIR) prepared for the project site did not identify any recognized environmental conditions (RECs) or USTs. According to the local DTSC record searches and interviews with individuals familiar with the subject property, there are no potential RECs existing on the project site. However, one AST was observed within the fenced farmyard within the project site. Access to the AST was not available at the time of the site reconnaissance. If it is shown that spills or leaks had occurred, the affected soil shall be cleaned up and properly disposed according to the HMMP. Several steel 55-gallon drums were also observed on the subject property and no fluids were observed in the drums that were accessible. No other drums or storage containers, nor any open or damaged containers containing unidentified substances were observed at the project site. With adherence to requirements set forth by the ICFD, Imperial County Office of Emergency Services, DTSC, OSHA regulatory requirements and CUPA, impacts would be less than significant.

Lead and Asbestos

According to records research and the reconnaissance survey, the potential for lead-based paint residues and asbestos containing materials is very low because of the lack of site development. Therefore, a less than significant impact is identified for this issue area.

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 (eg 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.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.9-3 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?

The project site is not located within 0.25 mile of any existing or proposed schools. Therefore, the proposed project would not pose a risk to nearby schools and no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.9-4 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?

The project site is not identified in the EDR report as being located on a hazardous materials site pursuant to Government Code Section 65962.5. Implementation of the proposed project would result in no impact related to the project site being located on a listed hazardous materials site.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.9-5 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?

The project site is not located within 2 miles of a public airport. The nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to the Imperial County Airports Department, the Holtville Airport is currently closed. According to Figure 3B of the ALUCP, no portion of the project site is located within the Calexico International Airport's land use compatibility zones (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.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.9-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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 Circulation & Scenic Highways Element of the General Plan (County of Imperial 2008) identifies SR-98 and SR-7/S-32, which are adjacent to the project site and provide regional and local connections, as major access routes and corridors.

The applicant for the proposed project will be required, through the conditions of approval, to prepare a street improvement plan for the 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.

Mitigation Measure(s)

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?

The 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). 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 and service roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards. The access and service roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards.

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.

Mitigation Measure(s)

No mitigation measures are required.

3.9.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

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, battery storage system, transformers and other structures on each of 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 prior to construction of the solar facilities.

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.

3.10 Hydrology/Water Quality

This section provides a description of existing water resources within the project site 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 project, and mitigation measures where appropriate. The impact assessment provides an evaluation of potential effects to water quality based on criteria derived from CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description.

3.10.1 Existing Conditions

Drainage

The 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 Imperial Valley Planning Area consists of the following HUs: Imperial (723.00) comprised of 2,500 square miles in the southern portion of the Colorado River Basin Region, with the majority located in Imperial County; Davies (724.00), and Amos-Ogilby (726.00). The project site is located within the Imperial HU.

The Imperial HU consists of the majority of the Imperial Valley, encompassing over 1.3 million acres of land. The watershed includes vast acreages of agricultural land; towns such as El Centro, Calexico, and Brawley, along with a large network of IID operated canals and drains. The watershed is atypical of most watersheds in California, as it currently and historically has been shaped by man-made forces. The watershed's primary watercourses, the New and Alamo rivers, flow north, from the Mexican border toward their final destination, the Salton Sea. The Salton Sea, a 376 square mile closed inland lake was created in 1905 through a routing mistake and subsequent flood on the Colorado River. The sea has been fed primarily by agricultural runoff from the New and Alamo Rivers ever since that time.

The project site is within the Salton Sea watershed, Hydrologic Unit Code 18100204. The project site is downslope of the All-American Canal, which brings water from the Colorado River at the Imperial Dam, and then supplies it to the Imperial Valley through smaller lateral canals, all of which drain to the Salton Sea.

Runoff from adjacent agricultural land collects and is concentrated in the project site. Runoff within the project site generally flows south from the direction of the All-American Canal, toward the U.S.-Mexico border, and eventually drains into a playa at the south end of the site. Manmade berms running north-south line ephemeral drainages present throughout the western portion of the project site. The All-American Canal and groundwater likely feed the drainages and wetlands present onsite.

Flooding

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Panel 06025C2125C) (FEMA 2008), the project site is within Zone X, which is an area determined to be outside of the 0.2 percent annual chance of a flood.

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 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.

Based on the 305(b)/303(d) Integrated Report prepared by the Colorado River Basin RWQCB (RWQCB 2018), the following water features within the Brawley Hydrologic Area includes the Imperial Valley Drains (Wistaria Drain and Greeson Wash), New River, and the Salton Sea. Specific impairments listed for each of these water bodies (or Category 5) are identified below:

- Imperial Valley Drains: Impaired for pesticides (toxaphene, chlorpyrifos, dieldrin, chlordane, dichlorodiphenyltrichloroethane, and imidacloprid), metals (selenium), sediment/siltation, total toxics, and organic toxics (polychlorinated biphenyls);
- New River: Impaired for pesticides (toxaphene, chlorpyrifos, dieldrin, chlordane, hexachlorobenzene, dichlorodiphenyltrichloroethane, diazinon, cyhalothrin, lambda, cypermethrin, bifenthrin, malathion, disulfoton, imidacloprid), metals (selenium and mercury), sediment/siltation, nutrients (organic enrichment), trash, pathogens (indicator bacteria), organic toxics (polychlorinated biphenyls and naphthalene), total toxics, and dissolved salts (chloride);
- All-American Canal: Impaired for pesticides (dichlorodiphenyltrichloroethane);
- Salton Sea: pesticides (chlorpyrifos and dichlorodiphenyltrichloroethane), metals (arsenic), pathogens (Enterococcus), nutrients (ammonia and low dissolved oxygen), total toxics, and dissolved salts (chloride).

Groundwater Hydrology

The project site is located within the Imperial Valley Groundwater Basin (Basin No: 7-30), which covers approximately 1,870 surface square miles. The physical groundwater basin extends in the southeastern portion of California at the border with Mexico. The basin lies within the southern part of the Colorado Desert Hydrologic Region, south of the Salton Sea. The basin has 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 average thickness of the upper aquifer is 200 feet with a maximum thickness of 450 feet. The data regarding faults controlling groundwater movement is uncertain; however, as much as 80 feet of fine-grained, low permeability prehistoric lake deposits have accumulated on the valley floor, which result in locally confined aquifer conditions.

Groundwater recharge within the basin is primarily from irrigation return. Other recharge sources are deep percolation of rainfall and surface runoff, underflow into the basin, and seepage from unlined canals which traverse the valley. Groundwater levels within a majority of the basin have remained stable from 1970 to 1990 because of relatively constant recharge and an extensive network of subsurface drains.

Groundwater quality varies extensively throughout the base; however, is generally unusable for domestic and irrigation purposes without treatment (California Department of Water Resources 2004).

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

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 3.5, 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 and the Salton Sea. Table 3.10-1 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.
- 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 3.10-1. Beneficial Uses of Receiving Waters

Beneficial Uses	Imperial Valley Drains	Salton Sea
AQUA	--	X
FRSH	X	--
IND	--	P
REC I	X	X
REC II	X	X

Table 3.10-1. Beneficial Uses of Receiving Waters

Beneficial Uses	Imperial Valley Drains	Salton Sea
WARM	X	X
WILD	X	X
RARE	X	X

Source: SWRCB 2019

AQUA=aquaculture; FRSH=freshwater replenishment; 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

County of Imperial 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 3.10-2 identifies the General Plan policies and programs for water quality and flood hazards that are relevant to the project and summarizes the project's consistency with the General Plan. While this EIR analyzes the 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 3.10-2. Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element		
Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	The proposed 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 a project-specific SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework, design features, and BMPs.
Objective 6.3: Protect and improve water quality and quantity for all water bodies in Imperial County.	Consistent	The proposed 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 proposed project's drainage plans. The proposed 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.
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.	Consistent	The proposed project does not contain a residential component, nor would it place housing or other structures within a 100-year flood hazard area.
Water Element		
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.	Consistent	The project would preserve ground and surface water quality from hazardous materials and wastes during construction, operation and decommissioning activities. The proposed 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 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 decommissioning activities would be subject to similar, or more stringent ground and surface water regulations than those currently required.

Table 3.10-2. Project Consistency with Applicable General Plan Policies

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 proposed 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 proposed projects.

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

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).

3.10.3 Impacts and Mitigation Measures

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to hydrology/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

Methodology

The drainage design will be conducted in accordance with the County of Imperial's design criteria, which establishes that 100 percent of the 100-year storm (3 inches of rain) will be stored on-site and

released into the IID drainage system using existing drainage connections. Specifically, the project site will be surrounded by a levee system designed to divert stormwater, including stormwater from a 100-year storm event. Diverted stormwater will be channeled to designated retention areas adjacent to the All-American Canal, thus protecting the solar array (see Appendix I, Drainage Plan).

Impact Analysis

Impact 3.10-1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater water quality?

Construction

Construction of the proposed project would include 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.

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. This potential impact is considered a 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 level less than significant. 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 or the 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 project would be reduced to a level less than significant 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. This is considered a less than significant impact after mitigation has been incorporated.

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 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. Although the project site will be surrounded by a levee system designed to divert and retain stormwater, including stormwater from a 100-year storm event (see Appendix I, Drainage Plan), implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction source control and treatment control BMPs into the project's final drainage plan. Implementation of the project-specific source control and treatment BMPs into the final drainage plan would result in a decreased potential for storm water pollution.

While source control and treatment control BMPs would be finalized during preparation of the final drainage plan, the following are examples of BMPs that could be utilized to reduce the potential for stormwater pollution.

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 3.10-3 identifies examples of source control BMPs that could be implemented into the proposed project.

Table 3.10-3. Source Control Best Management Practices

Design Concept		Description
1	Design Trash Storage Areas to Reduce Pollution Introduction	Design outdoor trash storage areas so that run-on from adjoining areas cannot enter. Screen or wall trash enclosures to prevent the off-site transport of trash.
2	Activity Restrictions	Restrict activities that have the potential to create adverse impacts on water quality.
3	Non-storm Water Discharges	Provide educational materials on illegal dumping and spill response to employees.
4	Outdoor Loading and Unloading	Handle materials in a manner that prevents any storm water pollution.
5	Spill Prevention, Control, and Cleanup	Require a Spill Prevention, Control, and Countermeasure Plan, and a Hazardous Materials Business Plan in accordance with Federal and State requirements.
6	Education	Provide employees with materials for storm water pollution prevention in the form of brochures and other information in a format approved by the County of Imperial.
7	Integrated Pest Management	Reduce the need for pesticide use onsite by: • Keeping pests out of buildings using barriers, screens, and caulking • Eliminating pests through squashing, trapping, washing or pruning • Relying on natural enemies to eat pests • Using pesticides correctly as a last line of defense
8	Vehicle and Equipment Fueling, Cleaning, and Repair	Service all vehicles 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.

Table 3.10-3. Source Control Best Management Practices

	Design Concept	Description
9	Waste Handling and Disposal	Dispose of materials in accordance with Imperial County Hazardous Material Management guidelines. Under no circumstances shall any waste or hazardous materials be stored outside without secondary containment.

Treatment Control BMPs. Treatment control BMPs include 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.

Mitigation Measure(s)

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, Source Control, and Treatment Control BMPs into Final Project Drainage Plan.** The project's Final 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. The Final Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities, and shall include source control and treatment BMPs to adequately treat collected runoff prior to discharge, as necessary.

Significance after Mitigation

With the implementation of Mitigation Measure HYD-1, impacts on hydrology and surface water quality as attributable to the proposed project would be reduced to a level less than significant 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 hydrology and water quality impacts resulting from post-construction discharges during operation for the project would be reduced to a less than significant level. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's final drainage plan. The incorporation of source control and treatment BMPs into the final drainage plan would result in a decreased potential for storm water pollution.

Impact 3.10-2 ***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?***

Groundwater recharge in the area will not be significantly affected because 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. Groundwater at/near the project site is not used for beneficial uses, such as municipal, domestic, or industrial supply. Construction and operational water needs would be provided by the All-American Canal in conformance with IID construction water acquisition requirements. Therefore, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin. As a result, no significant impacts on groundwater levels are expected.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.10-3 ***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?

Construction

Project construction activities, specifically grading and excavation, have the potential to temporarily alter the existing drainage pattern of the site such that soil erosion occurs. However, 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. Additionally, with implementation of Mitigation Measure HWQ-1, which requires the preparation of a project-specific SWPPP and construction BMPs, project construction 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 result in substantial on- or off-site erosion or siltation. This is considered a less than significant impact after mitigation has been incorporated.

Operation

Daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to increase erosion. Under existing conditions, runoff from adjacent agricultural land collects and is concentrated in the project site. Runoff within the project site generally flows south from the direction of the All-American Canal, toward the U.S.-Mexico border, and eventually drains into a playa at the south end of the site. While implementation of the project would include a new levee drainage system, the drainage system would be designed to continue to retain stormwater onsite. Additionally, during operational activities, soil erosion and sedimentation would be controlled in accordance with the NPDES General Construction Permit and project-specific SWPPP. The project site would remain largely impervious over the operational life of the project. The proposed 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. This is considered a less than significant impact.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure HYD-1 are required.

Significance after Mitigation

With the implementation of Mitigation Measures HYD-1, the potential hydrology and water quality impacts resulting from increased erosion during construction of the proposed project would be reduced to a level less than significant.

Impact 3.10-4 ***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?

Construction

Project construction activities, specifically grading and excavation, have the potential to temporarily alter the existing drainage pattern of the site such that surface runoff increases in a manner which results in flooding on- or off-site. However, 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. Additionally, with implementation of Mitigation Measure HWQ-1, which requires the preparation of a project-specific SWPPP and construction BMPs, project construction 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 result in flooding on- or off-site. This is considered a less than significant impact after mitigation has been incorporated.

Operation

Existing drainage patterns would not be substantially altered during operation of the proposed project. Under existing conditions, runoff from adjacent agricultural land collects and is concentrated in the project site. Runoff within the project site generally flows south from the direction of the All-American Canal, toward the U.S.-Mexico border, and eventually drains into a playa at the south end of the site. While implementation of the project would include a new levee drainage system, the drainage system would be designed to continue to retain stormwater onsite. Additionally, the project will be designed to meet County of Imperial storage requirements 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. Therefore, the proposed project would result in no significant impacts associated with the alteration of drainage patterns resulting in on- or off-site flooding. This is considered a less than significant impact after mitigation has been incorporated.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure HYD-1 are required.

Significance after Mitigation

With the implementation of Mitigation Measures HYD-1 and HYD-2, the potential hydrology and water quality impacts resulting from increased surface runoff and associated flooding during construction and operation of the proposed project would be reduced to a level less than significant.

Impact 3.10-5 ***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?

Construction

Project construction activities, specifically grading and excavation, have the potential to temporarily alter the existing drainage pattern of the site such that the capacity of existing or planned stormwater drainage systems is exceeded or substantial additional sources of polluted runoff are added to the stormwater drainage system. However, 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. Additionally, with implementation of Mitigation Measure HWQ-1, which requires the preparation of a project-specific SWPPP and construction BMPs, project construction 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 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 after mitigation has been incorporated.

Operation

The proposed 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 project site would remain pervious. Existing drainage patterns would not be substantially altered because of the proposed project. Under existing conditions, runoff from adjacent agricultural land collects and is concentrated in the project site. Runoff within the project site generally flows south from the direction of the All-American Canal, toward the U.S.-Mexico border, and eventually drains into a playa at the south end of the site. While implementation of the project would include a new levee drainage system, the drainage system would be designed to continue to retain stormwater onsite. Additionally, with the implementation of Mitigation Measure HYD-2, potential water quality impacts resulting from post-construction discharges during operation of the project would be reduced to a less than significant level. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's final drainage plan. The incorporation of source control and treatment BMPs into the final drainage plan would result in a decreased potential for stormwater pollution. The proposed 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 after mitigation has been incorporated.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measure HYD-1 and HYD-2 are required.

Significance after Mitigation

With the implementation of Mitigation Measures HYD-1 and HYD-2, the potential hydrology and water quality impacts resulting from increased surface runoff and associated increases in polluted runoff entering the storm drain system during construction and operation of the proposed project would be reduced to a level less than significant.

Impact 3.10-6 ***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?

According to the FEMA Flood Insurance Rate Map (Panel 06025C2125C) (FEMA 2008), the project site is within Zone X, which is an area determined to be outside of the 0.2 percent annual chance of a flood. Additionally, the project's drainage plan has been designed to meet County of Imperial storage requirements 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. Therefore, the proposed 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 no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.10-7 ***In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?***

The project site is within Zone X, which is an area determined to be outside of the 0.2 percent annual chance of a flood. The project site is not located near any large bodies of water. The Salton Sea is located approximately 38 miles northwest of the project site. Because of the distance, the Salton Sea does not pose a particularly significant danger of inundation from seiche or tsunami as related to the project site. Furthermore, the project site is over 100 miles inland from the Pacific Ocean. In addition, the project site is relatively flat. Therefore, there is no potential for the project site to be inundated by seiches or tsunamis.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.10-8 ***Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

As described under Impact 3.10-1 above, with the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the proposed project would be reduced to a level less than significant through the inclusion of focused BMPs for the protection of surface water

resources. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's final drainage plan. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. Therefore, the proposed project would not pose a significant threat to local surface water features or shallow groundwater resources. Implementation of Mitigation Measures HYD-1 and HYD-2 would reduce impacts to a level less than significant.

Mitigation Measure(s)

No additional mitigation measures beyond Mitigation Measures HYD-1 and HYD-2 are required.

Significance after Mitigation

With the implementation of Mitigation Measures HYD-1 and HYD-2, the potential hydrology and water quality impacts resulting from conflicts with a water quality control plan or groundwater management plan during construction and operation of the proposed project would be reduced to a level less than significant.

3.10.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

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, tsunamis, or seiche zones.

Residual

With implementation of the mitigation measures listed above, implementation of the proposed 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 level less than significant. Based on these circumstances, the proposed project would not result in any residential significant and unmitigable adverse impacts on surface water hydrology and water quality.

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3.11 Land Use Planning

This section provides information regarding current land use, land use designations, and land use policies within, and in the vicinity of, the project site. 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 County General Plan and other applicable federal, state, and local requirements, which governs land use within the project area and evaluates the project's potential to conflict and/or adherence 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.

3.11.1 Existing Conditions

The project site is located within an unincorporated area of Imperial County, approximately 10 miles east of the City of Calexico. The 450-acre project site is located on two contiguous privately-owned parcels (APNs 059-300-015 and 059-300-017). The irregular shaped project site is bound by undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities to the west and east, the All-American Canal running southwest on the northern border of the project site, and the U.S./Mexico international border to the south. The project site is currently characterized by flat and undeveloped land, portions of which have been disturbed associated with previous agricultural-related activities. The existing IID 92 kV "P" Line is located immediately north of the All-American Canal.

As shown on Figure 3.11-1, the project site is designated as Agriculture under the County's General Plan. As shown on Figure 3.11-2, the project site is currently zoned Heavy Agriculture with a RE Zone Overlay (A-3-RE). Land uses surrounding the project site are designated by the General Plan as Agriculture to the north and west, and Recreation to the east.

The County adopted the RE 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 RE facilities while minimizing the impact to other established uses. As shown on Figure 3.11-2, the entire project site is located within the RE Overlay Zone.

The project site is located in a sparsely populated portion of Imperial County. There are no established residential communities located within or in the vicinity of the project site. The nearest established residential community is in Calexico.

The nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and the Holtville Airport located approximately 10 miles north of the project site.

Figure 3.11-1. General Plan Land Use Designations

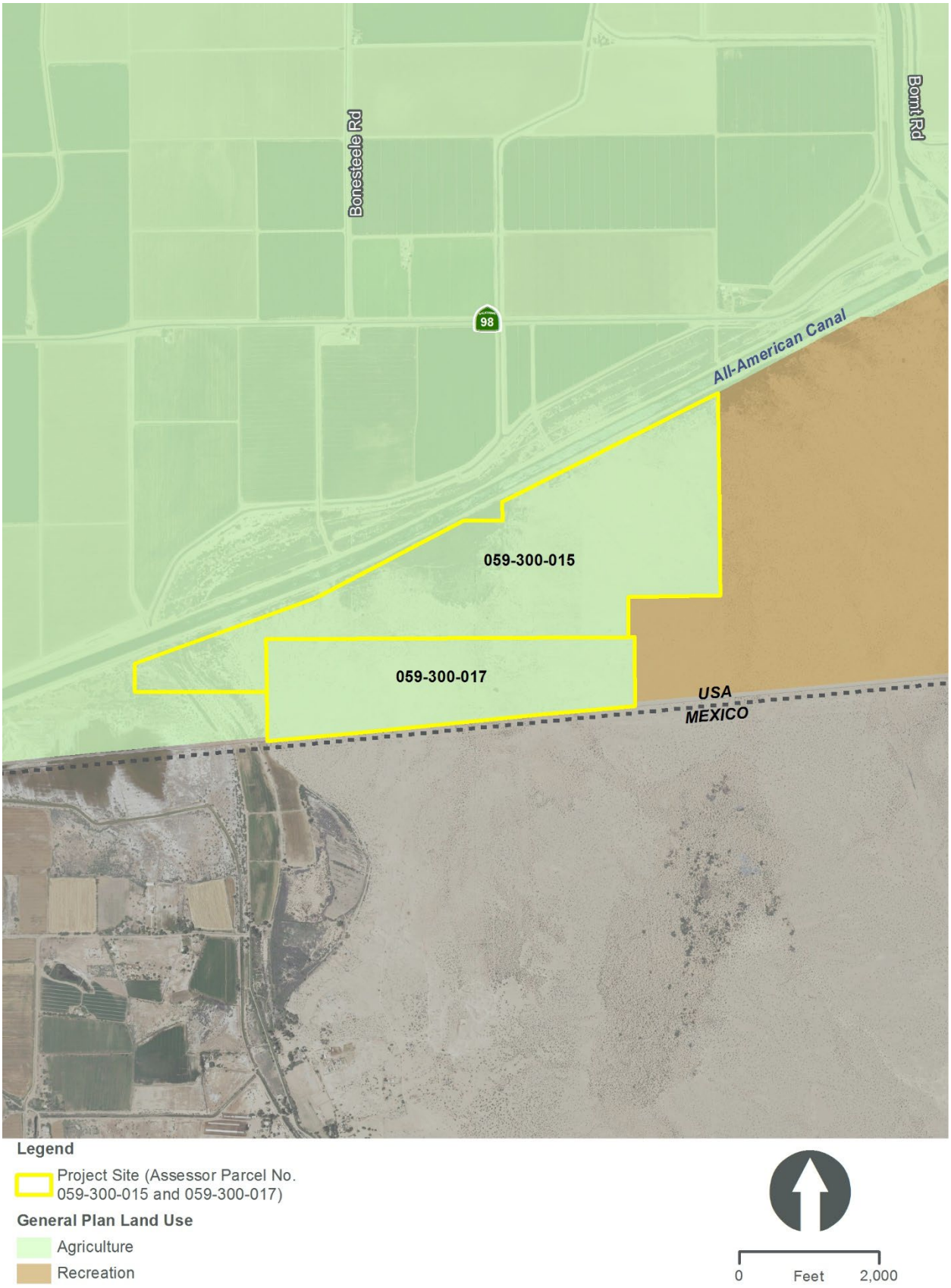
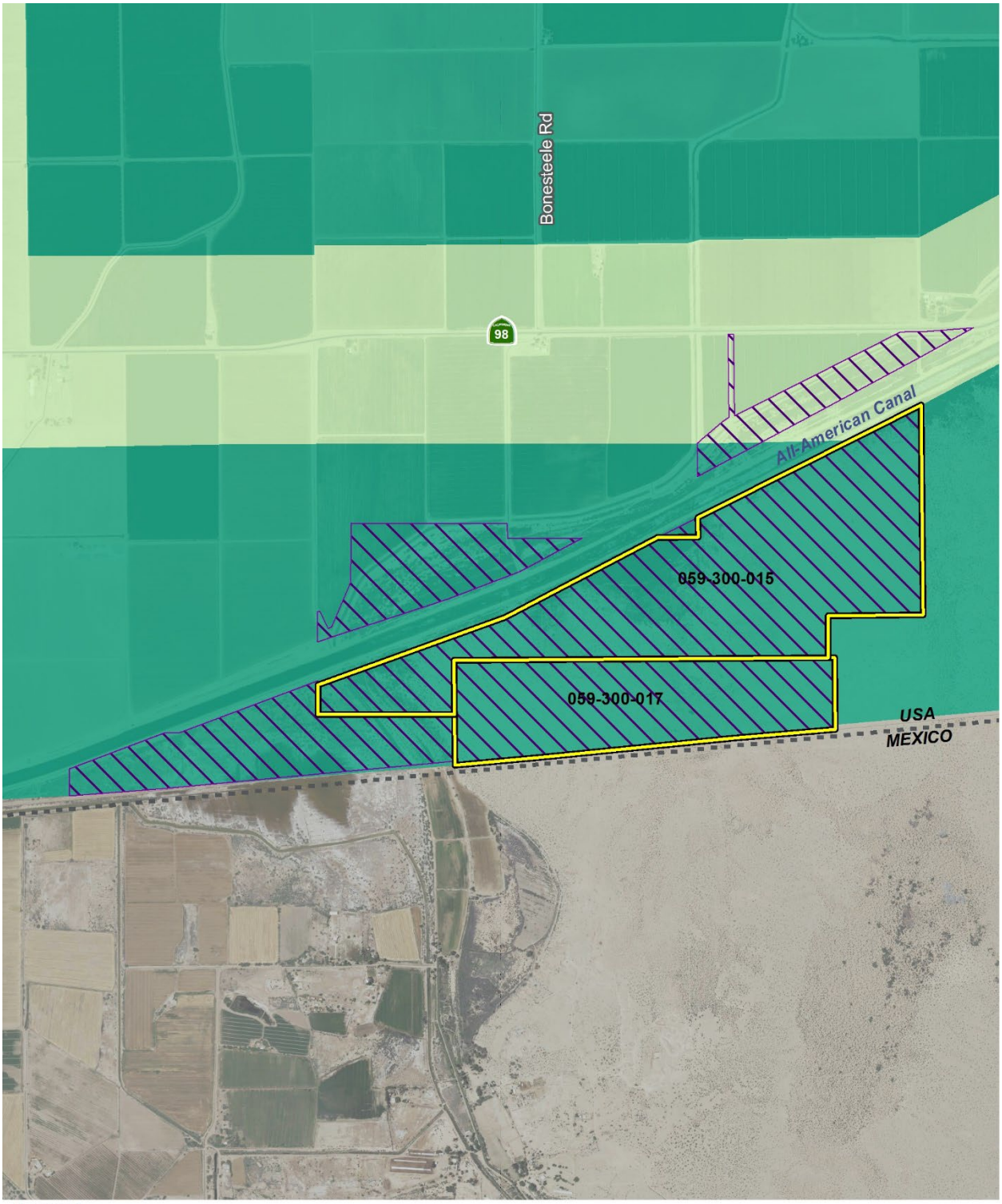


Figure 3.11-2. Zoning Designations



3.11.2 Regulatory Setting

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

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

County of Imperial 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 to 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; RE 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 California Energy Commission RE and Conservation Planning Grant to amend and update the County's General Plan in order to facilitate future development of RE 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 GHG emissions, develop alternative fuel sources and implement its Renewable Portfolio Standard. The County prepared an update to the Geothermal/Alternative Energy and Transmission Element of its General Plan, called the RE and Transmission Element. This Element is designed to provide guidance and approaches with respect to the future siting of RE projects and electrical transmission lines in the County. The County adopted this element in 2016, which has been amended several times to incorporate additional overlay zones.

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 shown on Figure 3.11-2, the entire project site is located within 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 3.11-1. 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 project's consistency with the General Plan.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
Land Use Element		
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.	Consistent	The proposed project includes the necessary supporting infrastructure and would not require new community-based infrastructure. The proposed project would be required to construct supporting drainage infrastructure on-site consistent with County requirements and mitigation measures prescribed in Section 3.10 Hydrology/Water Quality of the EIR. Once the proposed project is operational, a limited amount of water would be required for solar panel washing and fire protection. The proposed project would not require an operations and maintenance building. Therefore, no septic system would be required for the proposed project.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
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.	Consistent	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 shown on Figure 3.11-2, the project site is located within the RE Overlay Zone. Therefore, the proposed project would be sited in a suitable location for the transmission of electricity.
Public Facilities. Objective 8.9: Require necessary public utility rights-of-way when appropriate.	Consistent	The proposed project would include the dedication of ROW, if necessary, to facilitate the placement of electrical distribution and transmission infrastructure.
Protection of Environmental Resources. Objective 9.6: Incorporate the strategies of the Imperial County AQAP in land use planning decisions and as amended.	Consistent	Dust suppression will be implemented in accordance with a dust control plan approved by the ICAPCD. Section 3.4, Air Quality, discusses the project's consistency with the AQAP in more detail.
Circulation and Scenic Highways Element		
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	The proposed project would include limited operational vehicle trips and would not be expected to reduce the current LOS at affected intersections, roadway segments, and highways. The proposed project does not propose residential or commercial development and therefore would not require new forms of alternative transportation to minimize impacts to 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, a traffic study was prepared for the project and determined that the proposed project would have a less than significant impact on the circulation network. Once construction is completed, the project would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. The project would include limited operational vehicle trips and would not reduce the current level of service at affected intersections, roadway segments, and highways.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
Noise Element		
Noise Environment. Objective 1.3: Control noise levels at the source where feasible.	Consistent	As discussed in Section 3.12, Noise and Vibration, 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. Project operational noise would not exceed County daytime or nighttime 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. As discussed in Section 3.12, Noise and Vibration, 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. Project operational noise would not exceed County daytime or nighttime standards.
Conservation and Open Space Element		
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 energy sources, providing the public with alternative choices to fossil fuels.
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.	Consistent	A biological resources survey was conducted for the project site. As discussed in Section 3.5, Biological Resources, there are potentially significant biological resources located within the project site. However, with the implementation of Mitigation Measures BIO-1 through BIO-7 these impacts would be reduced to a level less than significant. The project site is not designated or otherwise identified as critical habitat for any species.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
Preservation of Cultural Resources. Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Consistent	A cultural resources report was prepared for the project site. As discussed in Section 3.6, Cultural Resources, the proposed project has the potential to impact historical resources, and encounter undocumented archaeological resources and human remains. Mitigation Measures CR-1 and CR-4 have been identified to reduce potential impacts to a level less than significant.
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.	Consistent	As discussed in Section 3.10, 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.
Conservation of Energy Sources. Objective 6.2: Encourage the utilization of alternative passive and renewable energy resources.	Consistent	The proposed project entails the construction and operation of a solar energy facility, which is considered an alternative source of energy.
Conservation of Energy Sources. Objective 6.6: Encourage compatibility with National and State energy goals and city and community general plans.	Consistent	The proposed project is consistent with California Public Utilities Code § 399.11 et seq., “Increasing the Diversity, Reliability, Public Health and Environmental Benefits of the Energy Mix.” California’s electric utility companies are required to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Additionally, the proposed project would contribute toward the state’s need for RE to meet the goals of its Renewable Portfolio Standard.
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 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.
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.	Consistent	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, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-1). Therefore, the proposed project is consistent with this objective.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
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.	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, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-1). Therefore, the proposed project is consistent with this objective.
Protection of Open Space and Recreational Opportunities. Objective 8.2: Focus all new renewable energy development within adopted Renewable Energy Overlay Zones.	Consistent	As shown on Figure 3.11-2, the project site is located entirely within the RE Overlay Zone.
RE 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 RE facilities.	Consistent	A biological resources report has been prepared for the project, which is summarized in Section 3.5, Biological Resources, along with potential impacts attributable to the proposed project. With incorporation of Mitigation Measures BIO-1 through BIO-7 identified in Section 3.5, 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	As previously mentioned, water consumption 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 RE facilities and transmission lines comply with ICAPCD's regulations and mitigation measures.	Consistent	Dust suppression will be implemented including the use of water and soil binders during construction. Section 3.4, Air Quality, discusses the project's compliance with ICAPCD's regulations in more detail.

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
Objective 2.1: To the extent practicable, maximize utilization of IID's transmission capacity in existing easements or rights-of-way. Encourage the location of all major transmission lines within designated corridors easements, and rights-of-way.	Consistent	The proposed project involves the construction and operation of new RE infrastructure that would interconnect with existing IID transmission infrastructure thereby maximizing the use of existing facilities located within existing easements and/or ROW. As discussed in Chapter 2, Project Description, the power produced by the proposed project would be conveyed to the local power grid via an on-site 92 kV substation, which will be tied directly to IID's existing 92 kV "P" transmission line.
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 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. 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 0.50 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. A preliminary geotechnical report has been prepared for the proposed project. The preliminary geotechnical report has been referenced in this environmental document. Additionally, a design-level geotechnical investigation would be conducted to evaluate the potential for site specific hazards associated with seismic activity.
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.		
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.		

Table 3.11-1. Project Consistency with Applicable General Plan Policies

Applicable Policies	Consistency Determination	Analysis
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.
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: Imperial County General Plan, as amended

Notes:
AQAP=air quality attainment plan; CBC=California Building Code; CUP=conditional use permit; EIR=environmental impact report; GHG=greenhouse gas; ICAPCD=Imperial County Air Pollution Control District; IID=Imperial Control District; LOS=level of service; 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.

PERMITTED AND CONDITIONAL USES

A-3 Zoning. As shown on Figure 3.11-2, the project site is zoned Heavy Agriculture with a Renewable Energy Zone Overlay (A-3-RE). Pursuant to Title 9, Division 5, Chapter 9, the purpose of the A-3 zoning designation is to "designate areas that are suitable for agricultural land uses; to prevent the encroachment of incompatible uses onto and within agricultural lands; and to prohibit the premature conversion of such lands to non-agricultural uses. It is a land use that is to promote the heaviest of agricultural uses in the most suitable land areas of the county. Uses in the A-3 zoning designation are limited primarily to agricultural related uses and agricultural activities that are compatible with agricultural uses" (County of Imperial 2020).

Uses in the A-3 zoning designation are limited primarily to agricultural-related uses and agricultural activities that are compatible with agricultural uses. Pursuant to Title 9, Division 5, Chapter 9, the following uses are permitted in the A-3 zone subject to approval of a CUP from Imperial County:

> *i) Battery Storage Facility (must be connected to an existing electrical power generation plant such as solar, geothermal, wind, natural gas, or other renewable energy generator, as an accessory unit to said power plant).*
>
> *oo) Major facilities relating to the generation and transmission of electrical energy, provided 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, meeting the requirements in Division 17.*
>
> *zz) Solar energy plants meeting the requirements in Division 17.*

Height Limit. Section 90509.07 of the Land Use Ordinance limits the height of all non-residential structures and specifically states in Section 90509.07 (C) that, "Non-Residential structures and commercial communication towers shall not exceed one hundred twenty (120) feet in height, and as may be required by the airport land use compatibility plan (ALUCP)." The height of the proposed gen-tie transmission structures would be 60 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 of the Land Use Ordinance 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 and require a CUP are 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 airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to Figure 3B (Compatibility Map – Calexico International Airport) and Figure 3D (Compatibility Map – Holtville Airport) of the ALUCP, no portion of the project site is located within the Calexico International Airport or Holtville Airport's land use compatibility zones (County of Imperial 1996).

3.11.3 Impacts and Mitigation Measures

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to land use/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

Methodology

The project's consistency with applicable federal, state, and local land uses plans and policies was evaluated in order to analyze land use consistency and land use impacts. The approach employed included:

- Review of the proposed project relative to the land use assumptions, policies, and designations of the Imperial County General Plan and applicable land use plans, policies, and regulations.
- Identification of potential conflicts between the proposed land uses and existing or proposed land uses in the vicinity.

In some instances, the land use for the project poses potential physical environmental consequences, such as traffic. In these cases, the consequences are discussed in the specific section of this EIR that focuses on that issue. The conceptual site plan for the project was also used to evaluate potential impacts.

Impact Analysis

Impact 3.11-1 ***Would the project physically divide an established community?***

The project site is located in a sparsely populated portion of Imperial County. There are no established residential communities located within or in the vicinity of the project site. The nearest established residential community is located approximately 10 miles west of the project site in Calexico. Therefore, implementation of the proposed project would not divide an established community and no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.11-2 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?

The project's consistency with applicable land use plans, policies, and regulations is evaluated below.

SCAG 2020-2045 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. The proposed project would temporarily convert Farmland of Local Importance to non-agricultural uses. However, as a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan. The reclamation plan includes the removal, recycling, and/or disposal of all solar arrays, inverters, transformers, and other structures on the project site, as well as restoration of the site to its pre-project condition. Therefore, the proposed project would not permanently convert Farmland of Local Importance to non-agricultural uses. Therefore, 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 and supporting infrastructure portions associated with the project. An analysis of the project's consistency with the General Plan goals and objectives relevant to the project is provided in Table 3.11-1. As shown in Table 3.11-1, the proposed project would generally be consistent with the goals and objectives of the General Plan. No amendment to the General Plan for a zone change would be required because the project site is entirely within the RE Overlay Zone. Therefore, no impacts due to a conflict with the General Plan would occur.

County of Imperial Land Use Ordinance

Development of the solar energy facility and supporting is subject to the County's zoning ordinance. The solar energy facility is located on two privately-owned legal parcels zoned A-3-RE. Pursuant to Title 9, Division 5, Chapter 9, the following uses are permitted in the A-3 zone subject to approval of a CUP from Imperial County:

> *i) Battery Storage Facility (must be connected to an existing electrical power generation plant such as solar, geothermal, wind, natural gas, or other renewable energy generator, as an accessory unit to said power plant).*
>
> *oo) Major facilities relating to the generation and transmission of electrical energy, provided 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, meeting the requirements in Division 17.

zz) Solar energy plants meeting the requirements in Division 17.

Therefore, with approval of a CUP for the project, the proposed project would not conflict with the County's zoning ordinance.

Title 9, Division 17 of the Land use Ordinance, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects, with an approved CUP. Therefore, the proposed project qualifies as a permitted use with the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility. With approval of a CUP, the proposed project would not conflict with the County's zoning ordinance. No impacts due to a conflict with the County of Imperial Land Use Ordinance(s) would occur.

Imperial County Airport Land Use Compatibility Plan

As discussed above in Section 3.11.2, the nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to Figure 3B (Compatibility Map – Calexico International Airport) and Figure 3D (Compatibility Map – Holtville Airport) of the ALUCP, no portion of the project site is located within the Calexico International Airport or Holtville Airport's land use compatibility zones (ALUC 1996). Therefore, the proposed project would not conflict with the Imperial County ALUCP, and no significant impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

3.11.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

Decommissioning and restoration would not physically divide an established community or conflict with any applicable land use plans, policies, or regulations. Decommissioning would be conducted in compliance with a required Reclamation Plan that would be implemented at the end of the proposed project's life and would adhere to Imperial County's decommissioning requirements. Further, decommissioning activities would be subject to mandatory compliance with applicable local, State, and federal regulations designed to avoid adverse impacts to the project area and surrounding environment. Therefore, environmental impacts due to a conflict with an applicable land use plan, policy or regulation would be less than significant.

Residual

With the approval of a CUP and reclamation plan to address post-project decommissioning, the proposed project would generally be consistent with applicable state, regional, and local plans and policies. Based on these circumstances, the proposed project would not result in any residual significant and unmitigable land use impacts.

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3.12 Noise and Vibration

This section identifies the ambient noise environment for the project 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 project. The information for this section is summarized from a project-specific Noise Impact Assessment, prepared by ECORP Consulting, Inc. This report is included in Appendix J of this EIR.

3.12.1 Existing Conditions

Noise

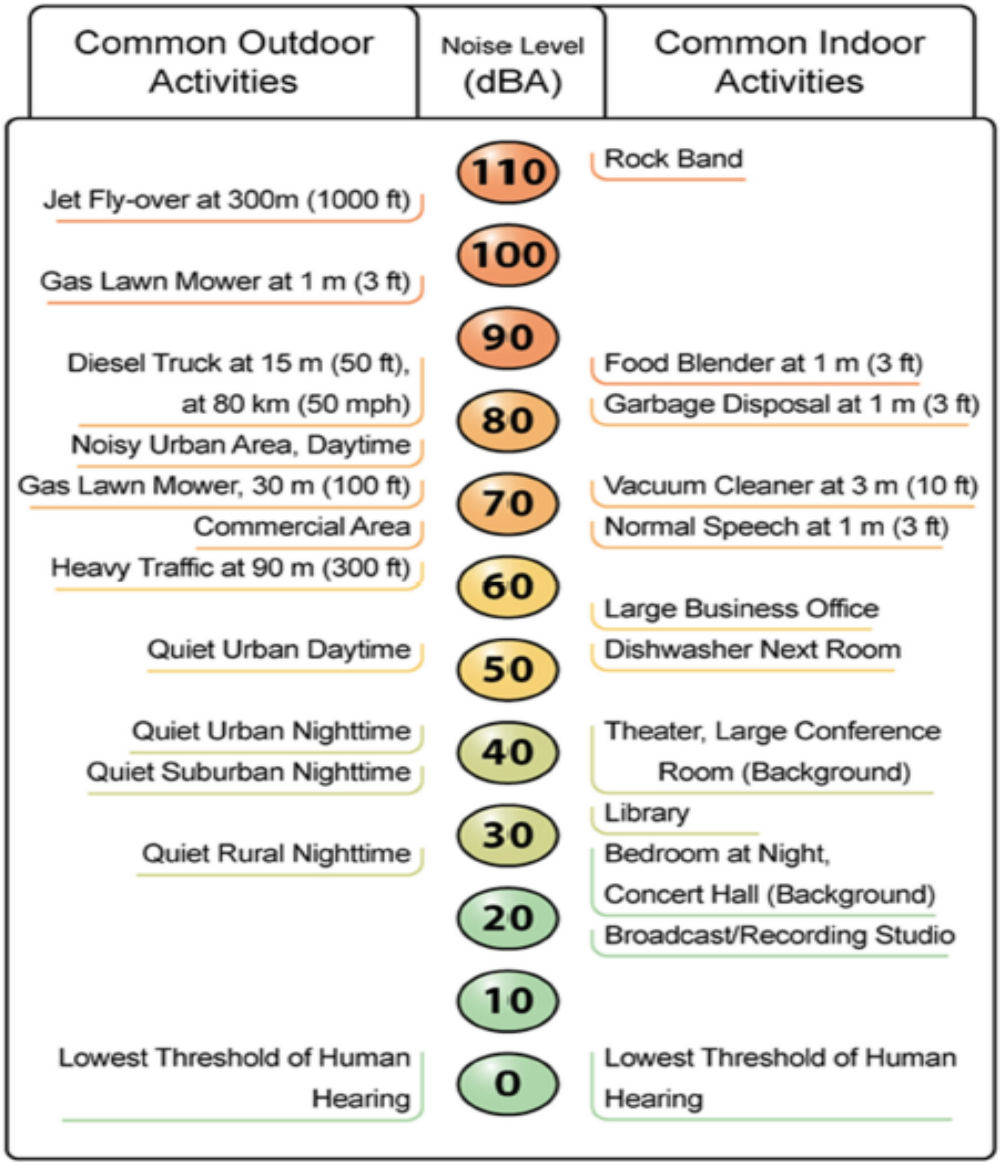
Noise is defined as unwanted sound. Pressure waves traveling through air exert a force registered by the human ear as sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level), which is measured in decibels (dB), with zero dB corresponding 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 (Hz) and above 5,000 Hz 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 3.12-1.

Figure 3.12-1. Common Noise Levels



Source: Appendix J 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 J 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 J 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 J 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

The project site consists of flat undeveloped land and is bound by agricultural land to the north with SR 98 beyond, agricultural land to the west, vacant undisturbed land to the east, and a mix of vacant undisturbed and agricultural land to the south. In order to quantify existing ambient noise levels in the project area, ECORP Consulting, Inc. conducted three short-term noise measurements on January 12, 2021. The noise measurement sites were representative of typical existing noise exposure within and adjacent to the project site during the daytime. The 15-minute measurements were taken between 1:51 p.m. and 2:45 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. As shown in Table 3.12-1, the existing noise levels (baseline) in the project-vicinity range from 65.4 to 68.7 dBA.

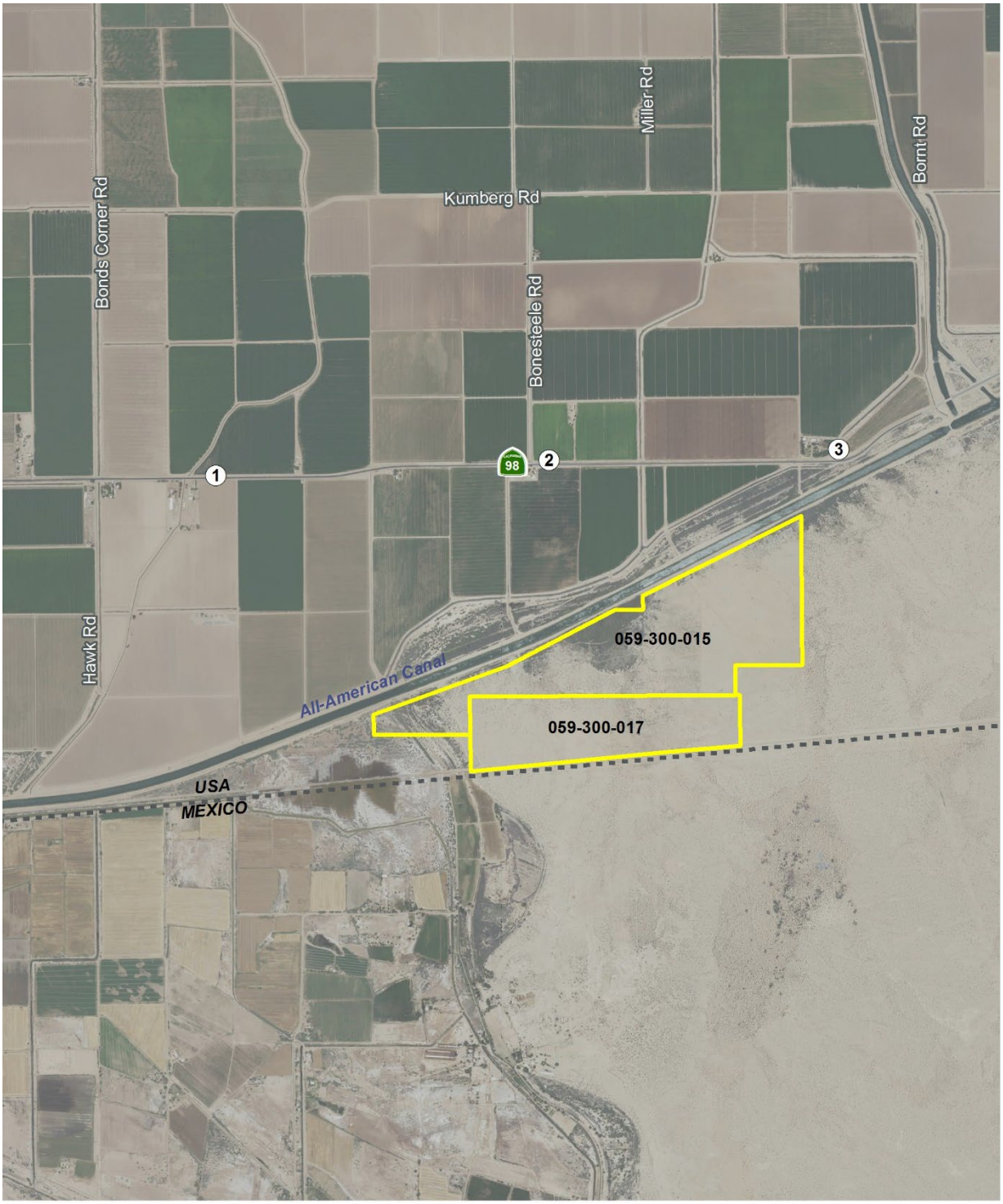
Table 3.12-1. Existing (Baseline) Noise Measurements

Measurement Location Number	Location	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
1	CA-98 East of Bonds Corner Road	65.4	36.3	79.8	2:30 p.m.- 2:45 p.m.
2	CA-98 East of Bonesteel Road	68.7	25.2	86.2	2:10 p.m. – 2:25 p.m.
3	CA-98 Southeastern Extent	66.1	40.8	81.5	1:51 p.m. – 2:06 p.m.

Source: Appendix J of this EIR

The most common noise in the project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) traveling on SR 98. 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.

Figure 3.12-2. Noise Measurement Locations



Noise Sensitive Land Uses

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 existing noise-sensitive land use to the project site is a single-family residence located approximately 1,342 feet from the northeastern corner of project site.

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 J of this EIR).

Table 3.12-2 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 3.12-2 is considered very unlikely to cause damage to buildings of any type.

Table 3.12-2. 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	67 – 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 J 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 3.12-3.

Table 3.12-3. 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 J of this EIR

Proximity to Airports

The project site is not located within 2 miles of a public airport or a public use airport. The nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to the Imperial County Airports Department, the Holtville Airport is currently closed.

3.12.2 Regulatory Setting

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

Federal

Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 dBA over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

State

State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines, published by the Governor's Office of Planning and Research (OPR), 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.

State Office of Planning and Research Noise Element Guidelines

The State OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a Land Use Compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. 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 3.12-4 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.

Table 3.12-4. 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							
Transient Lodging – Motel, Hotel							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditorium, Concert Hall, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business, Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Table 3.12-4. 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
	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.						
	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.						
	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.						
	Clearly Unacceptable	New construction or development generally should not be undertaken.						

Source: OPR 2017; ICPDS 1993

CNEL - community noise equivalent level; dBA – A-weighted decibel; L_{dn} – day-night average sound level

Local

County of Imperial General Plan Noise Element

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 3.12-5 summarizes the project's consistency with the applicable General Plan noise policies. While this EIR analyzes the 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 daytime, shall be 50 dB averaged over a 1-hour period ($L_{eq}(1)$).

Table 3.12-5. Project Consistency with Applicable General Plan Noise Policies

General Plan Policies	Consistency with General Plan	Analysis
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.	Consistent	Under existing conditions, the ambient noise environment is characterized as relatively quiet with peak noise levels influenced by vehicular traffic traveling on SR 98. Given that the 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.
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.	Consistent	Noise levels associated with project operations would not exceed noise limits for the A-3 zone. See Section 3.12.3 for additional discussion.
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.	Consistent	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. Noise levels associated with project operations would not exceed noise limits for the A-3 zone.
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	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. Noise levels associated with project operations would not exceed noise limits for the A-3 zone.

Table 3.12-5. Project Consistency with Applicable General Plan Noise Policies

General Plan Policies	Consistency with General Plan	Analysis
6. Projects Which Generate Off-site Traffic Noise. The acoustical analysis shall identify and evaluate projects, which would 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, the project would involve a minimal number of operational related vehicle trips and therefore, is unlikely to produce any increase in traffic noise levels on local roadways.

Source: ICPDS 1993

Construction Noise Standards

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 (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 L_{eq} 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 3.12-6).

Table 3.12-6. 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
dBA – A-weighted decibel; L_{eq} – equivalent sound level		

Imperial County Right-to-Farm Ordinance

In recognition of the role of agriculture in the county, the County of Imperial has adopted a "right-to-farm" ordinance (County of Imperial Codified Ordinances, Division 2, Title 6: Right to Farm). A "right-to-farm" ordinance creates a legal presumption that ongoing standard farming practices are not a nuisance to adjoining residences and requires a disclosure to landowners near agricultural land operations or areas zoned for agricultural purposes. The disclosure advises persons regarding potential discomfort and inconvenience that may occur from operating machinery as a result of conforming and accepted agricultural operations.

3.12.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts on 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 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

Noise and Vibration

This analysis of the existing and future noise environments is based on empirical observations. Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Model (see Appendix J of this EIR for details). Groundborne vibration levels associated with construction-related activities for the project were 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.

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 Consulting, Inc. (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 SoundExpert LxT 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 Appendix J of this EIR for details). 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.

Impact Analysis

Impact 3.12-1 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?

Onsite Construction Noise

Construction noise associated with the proposed project 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 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, material handlers, 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.

Nearby noise-sensitive land uses consist of a scattering of single-family residential units located within 1 mile of the proposed project site boundary to the north across the All-American Canal. The closest sensitive receptor is located approximately 1,342 feet from the northeastern corner of the 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 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 L_{eq} when averaged over a one 1-hour period.

The anticipated short-term construction noise levels generated for the necessary construction equipment are presented in Table 3.12-7.

Table 3.12-7. Construction Average Noise Levels (dBA) at the Nearest Receptor

Equipment	Estimated Exterior Construction Noise Level at Nearest Receptor	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (2)	46.6 (each)	75	**No**
Tractors/Loaders/Backhoes (2)	51.4 (each)	75	**No**
Combined Site Preparation Equipment	**55.7**	**75**	**No**
Grading			
Excavators (4)	48.2 (each)	75	**No**
Graders (3)	52.4 (each)	75	**No**
Rubber Tired Dozens (2)	49.1 (each)	75	**No**
Scrapers (2)	51 (each)	75	**No**
Tractors/Loaders/Backhoes (4)	51.4 (each)	75	**No**
Combined Grading Equipment	**62.5**	**75**	**No**
Facility Construction			
Crane	44.0 (each)	75	**No**
Paver	45.6 (each)	75	**No**
Paving Equipment (2)	53.9 (each)	75	**No**
Pile Drivers (4)	65.7 (each)	75	**No**
Rollers (2)	44.4 (each)	75	**No**

Table 3.12-7. Construction Average Noise Levels (dBA) at the Nearest Receptor

Equipment	Estimated Exterior Construction Noise Level at Nearest Receptor	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Rough Terrain Forklifts (4)	50.8 (each)	75	**No**
Tractors/Loaders/Backhoes	51.4 (each)	75	**No**
Trenchers (2)	48.8 (each)	75	**No**
Combined Construction, Trenching, and paving	**72.2**	**75**	**No**

Source: Appendix J of this EIR

Notes: The nearest residence is located approximately 1,342 feet from the project boundary.

Leq = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 3.12-7, 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 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.

Offsite Construction Worker Traffic Noise

Project construction would also result in additional traffic on adjacent roadways over the time period that construction occurs. The number of on–site construction workers for the proposed project is not expected to exceed 150 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 100 workers at any one time. Onsite parking would be provided for all construction workers. According to the Traffic Impact Study prepared for the project (Appendix K of this EIR), a maximum of 510 daily automobile trips would be generated during project construction, accounting for construction worker commutes and equipment deliveries (see Appendix K of this EIR for details). The majority of these trips are expected to be accommodated on SR 98, SR 7, and Interstate 8.

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). SR 98 currently accommodates 2,400 average daily traffic trips, while SR 7 and Interstate 8 accommodate 6,700 average daily trips and 14,000 average daily trips, respectively. Thus, the estimated 510 daily trips during project construction would not result in a doubling of traffic on these facilities, and its contribution to existing traffic noise would not be perceptible.

Bonds Corner Road and West Heber Road are also projected to accommodate construction-related traffic with an estimated 69 daily trips on Bonds Corner Road and 5 daily trips on West Heber Road over the course of construction. These two facilities are classified as “minor arterial” roads by the County General Plan Circulation and Scenic Highways Element and are expected to accommodate approximately 14,800 daily trips. While the Circulation and Scenic Highways Element does not identify specific traffic counts for Bonds Corner Road, it estimates between 2,020 and 16,700 average daily

trips on West Heber Road. Thus, the estimated 510 daily trips during project construction would not result in a doubling of traffic on these facilities, and its contribution to existing traffic noise would not be perceptible.

Based on the considerations above, the proposed project would not generate a substantial temporary increase in ambient noise levels related to construction worker traffic 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.

Operation

The main stationary operational noise associated with the project would be from the proposed transformers, inverters, substation, and transmission lines. Onsite 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. Table 3.12-8 shows the predicted project noise levels at the nearest noise-sensitive land use, a single-family residence located approximately 1,343 feet north of the project site, across the All-American Canal.

Table 3.12-8. Modeled Operational Noise Levels at Nearest Sensitive Receptor

Location	Modeled Operational Noise Attributed to Project (L_{eq} dBA)	County Daytime Standard (L_{eq} dB)	County Nighttime Standard (L_{eq} dB)	Exceed Standard?
Property line of the nearest residence	32.4	50.0	45.0	**No**

Source: Appendix J of this EIR

Note: Reference noise measurement used to calculate Project onsite noise propagation identified at 47.1 dBA, per 30-minute measurements taken at a VEGA SES 4 solar generation facility in Imperial County.

As shown in Table 3.12-8, project operational noise would not exceed County daytime or nighttime standards.

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 be infrequent. Sporadic vehicle activity resulting from maintenance and operations trips would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible.

Given the above, project operation would not generate a substantial 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 during construction. Impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.12-2 Would the project generate excessive groundborne vibration or groundborne noise levels?

Construction

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the project would be primarily associated with short-term construction-related activities. Construction on the 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. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

As stated in Section 3.12.1 above, 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 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 3.12-3.

The County of Imperial does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for informational purposes. Caltrans and the Federal Transit Authority (FTA) have developed two of the decisive works in the assessment of vibrations from transportation and construction sources (Caltrans 2020; FTA 2018). Caltrans recommends a standard threshold of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings (Caltrans 2020). This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations (FTA 2018) for calculating construction vibration, construction vibration was measured from the center of the project site. The nearest structure of concern to the construction site, with regard to groundborne vibrations, is the All-American Canal located 100 feet from the proposed project site boundary (Appendix J of this EIR).

Potential project construction vibration levels were calculated based on the representative vibration levels presented for various construction equipment types in Table 3.12-3 and the construction vibration assessment methodology published by the FTA (FTA 2018). Table 3.12-9 presents the expected project-related vibration levels at a distance of 100 feet.

Table 3.12-9. Project Construction Vibration Levels at 100 Feet

Receiver PPV Levels (Inch per Second)					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, and Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer	Vibratory Roller			
0.011	0.009	0.004	0.000	0.026	**0.026**	**0.2**	**No**

Source: Appendix J of this EIR

As shown in Table 3.12-9, vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Thus, project construction would not exceed the recommended vibration threshold and this impact would be less than significant.

Operation

Project operations would not include the use of any large-scale stationary equipment that would result in excessive vibration levels, nor would it involve any operational activities that would result in excessive vibration. Therefore, the project would result in no impact associated with groundborne vibration during operations.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.12-3 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?

The project site is not located within 2 miles of a public airport or a public use airport. The nearest airports to the project site are the Calexico International Airport located approximately 10 miles west of the project site and Holtville Airport located approximately 10 miles north of the project site. According to the Imperial County Airports Department, the Holtville Airport is currently closed. The Imperial County Airport Land Use Commission has established a set of land use compatibility criteria for lands surrounding the airports in Imperial County in the Imperial County Airport Land Use Compatibility Plan (ALUCP) (County of Imperial 1996). According to Figure 4G of the ALUCP, the project site is outside of the noise contours of the Calexico International Airport. Therefore, the project would not expose people residing or working in the project area to excessive noise levels and no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

3.12.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

Decommissioning or restoration of the solar facility would use similar equipment to what was evaluated in the construction noise and vibration analysis. Adhering to Imperial County standards for construction noise levels would reduce the noise and vibration impacts to below a level of significance.

Residual

Adhering to the Imperial County standards for construction noise levels would reduce the noise and vibration impacts to below a level of significance.

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3.13 Transportation

This section addresses the proposed project's impacts on traffic and the surrounding roadway network associated with construction and operation of the proposed project. 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 project.

Information in this section is summarized from the Traffic Impact Study prepared by KOA. This report is included in Appendix K of this EIR.

3.13.1 Existing Conditions

Traffic Study Area

Intersections

The traffic study area for the proposed project includes the following intersections:

1. Site driveway and SR-98
2. Bonds Corner Road and SR-98
3. SR-98 and SR-7
4. SR-7 and Heber Road
5. SR-7 and south ramp
6. SR-7 and north ramp

Roadway Segments

The traffic study area for the proposed project includes the following roadway segments:

1. SR-98 from the project to the east
2. SR-98 from the project to Bonds Corner Road
3. SR-98 from Bonds Corner Road to SR-7
4. SR-7 from SR-98 to I-8
5. I-8 from SR-7 to SR-111

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.

Freeway Segments

The freeway segment (I-8 from SR-7 to SR-11) currently operates at acceptable LOS B in both directions under existing conditions.

Roadway Segments

All of the study area roadway segments analyzed currently operate at acceptable LOS A under existing conditions.

Intersections

All of the study area intersections analyzed currently operate at acceptable LOS B or better during the AM and PM peak hours 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 routes operate 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 project site is not within the Fixed Route Transportation system and, therefore, would not receive regular bus service to the project site or within the vicinity of the project site. The nearest IVT bus stop is the 32D (Calexico to Brawley) bus stop on the southwest corner of Pauling Avenue and 3rd Street in the City of Calexico, which is approximately 10 miles west of the project site.

Bicycle Facilities

The project site is located within a rural portion of Imperial County. There are no bicycle facilities in the immediate proximity of the project site. There are no planned bike routes in immediate proximity to the project site.

Project Site Access

The project site is located within an unincorporated area of Imperial County, approximately 10 miles east of the City of Calexico. The triangular project site is somewhat isolated in that the All-American Canal and U.S./Mexico Border make up the northern and southern boundaries of the site. Vehicular access to the site is currently provided via an existing driveway along SR 98, just east of the project site.

3.13.2 Regulatory Setting

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

State

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 project and potential construction access routes within the County, Caltrans District 11 is responsible for maintaining and managing I-8, SR-98, and SR-7.

Regional

SCAG 2020-2045 RTP/SCS (Connect SoCal)

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

County of Imperial Circulation and Scenic Highways Element

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).

3.13.3 Impacts and Mitigation Measures

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to transportation and traffic 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

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 K 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 K of this EIR LOS – level of service

California Department of Transportation

Freeway LOS analysis is based upon procedures developed by Caltrans. The corresponding LOS listed in Table 3.13-2 represents an approximation of freeway operating conditions in the peak direction of travel during the peak hour. Constant with Caltrans requirements, LOS D or better is used as the threshold for acceptable freeway operations.

Therefore, if the proposed project results in impacts that would degrade the LOS of I-8, SR-98, and SR-7 to LOS E or F, then the proposed project would exceed LOS thresholds as set forth by the County and Caltrans and may have a significant project impact. A feasible mitigation measure will need to be identified to return the impact within the thresholds (pre-project + allowable increase) or the impact will be considered significant and unmitigated.

Table 3.13-2. Caltrans Freeway Segment Level of Service Definitions

LOS	Maximum Volume/Capacity	Congestion/Delay	Traffic Description
A	0.0 ≤ 0.30	None	Free flow.
B	> 0.30 to 50.0	None	Free to stable flow, light to moderate volumes.
C	> 50.0 to 0.71	None to Minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	> 0.71 to 0.89	Minimal to Substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	> 0.89 to 1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
F	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (miles per hour [MPH]). Signalized segments experiences delays > 60.0 seconds/vehicle.

Source: Appendix K of this EIR *LOS = level of service*

Project Trip Generation

The proposed project will generate the most traffic during construction. The construction vehicle mix for both on-road and off-road equipment (e.g., dozers, loaders, excavators), by each phase of construction, is presented in Attachment A of the *Air Quality and Greenhouse Gas Assessment* prepared for the proposed project (Appendix C of this EIR).

The construction of the project is estimated to take 12-18 months and would begin in late 2022 and/or 2023. The number of on–site construction workers for the solar project facility is not expected to exceed 150 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 100 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.

Table 3.13-3 provides the estimated average daily on-road project trip generation (i.e., trips to and from the site) for the construction phases of the proposed project. As shown, the maximum number of on-road trips during construction would be approximately 520 daily trips ends (500 worker trips and 20 construction truck trips).

The proposed project requires minimal operations and maintenance activities and would not require presence of full-time employees. However, it is conservatively assumed that for day-to-day inspection and minor maintenance, some employees would commute to the project site. The annual operations are assumed to be as follows:

- For site inspection and minor repairs, up to 3 one-way worker trips per day would be generated.
- Routine maintenance activities would include panel washing, which is expected to occur two times annually.
- Periodic (approximately every 3 months) removal of vegetation manually and/or by treatment with herbicides.

Table 3.13-3. Construction Phase Trip Generation

Construction Phase (Duration)	Intensity (Unit)	Daily Rate	Daily Trip
Solar Construction Workers	150 (Employees)	2	300
Batter Storage Workers	150 (Employees)	2	200
Equipment Deliveries and Construction Truck Trips (PCE)	8 (trucks)	2.5	20
Total Daily Trips			**520**

Source: Appendix K of this EIR *PCE = passenger equivalent volumes*

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?

During the construction phase of the proposed project, the maximum number of trip ends generated on a daily basis would be approximately 520 trips. Under construction year conditions with and without the proposed project, all roadway segments analyzed would operate at LOS A, all intersections would operate at a LOS B or better during both AM and PM peak hours, and all freeway segments would operate at LOS B 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. 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 project would not interfere with bicycle facilities because the proposed 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 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.

Mitigation Measure(s)

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)?

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. The Natural Resources Agency (NRA) has adopted guidance to incorporate SB 743 into CEQA analysis. The NRA's Technical Advisory on Evaluating Transportation Impacts in CEQA (NRA 2018), includes screening thresholds for small projects. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.

Although the proposed 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 and would cease once construction is complete. Upon operation, the proposed project would only require intermittent maintenance (including inspection, panel washing, and vegetation removal), which would result in nominal (less than 10) daily vehicle trips. Therefore, the proposed 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)

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)?

The project is a solar infrastructure project that would occur on privately-owned land located in a rural area. 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 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.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.13-4 Would the project result in inadequate emergency access?

Vehicular access to the project site is currently provided via an existing driveway along SR-98. Under the proposed project, vehicular access for workers would continue to be provided via the existing driveway as the project would not require additional storage lanes or lengths along SR-98. Following discussions with the Imperial Irrigation District, it was determined heavy construction vehicles would cross the All-American Canal at Gordon Wells Road located approximately 20 miles east of the project site (Figure 3.13-1). Access for heavy construction vehicles to and from the project site requires crossing the All-American Canal, via two existing bridges (Figure 3.13-2), located along Gordon Wells Road. Gordon Wells Road has an interchange with I-8. The bridges over the canal were constructed in 2009. The bridges are rated as open with no restrictions and have a “Good” condition rating.

As previously stated, 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 and service roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards. The access and service roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards. Therefore, the project would not result in inadequate emergency access and impacts are considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

3.13.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

This section included an analysis of construction traffic for the proposed project. 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, roadway segments, and freeway 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.

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Figure 3.13-1. Proposed Heavy Construction Equipment Access

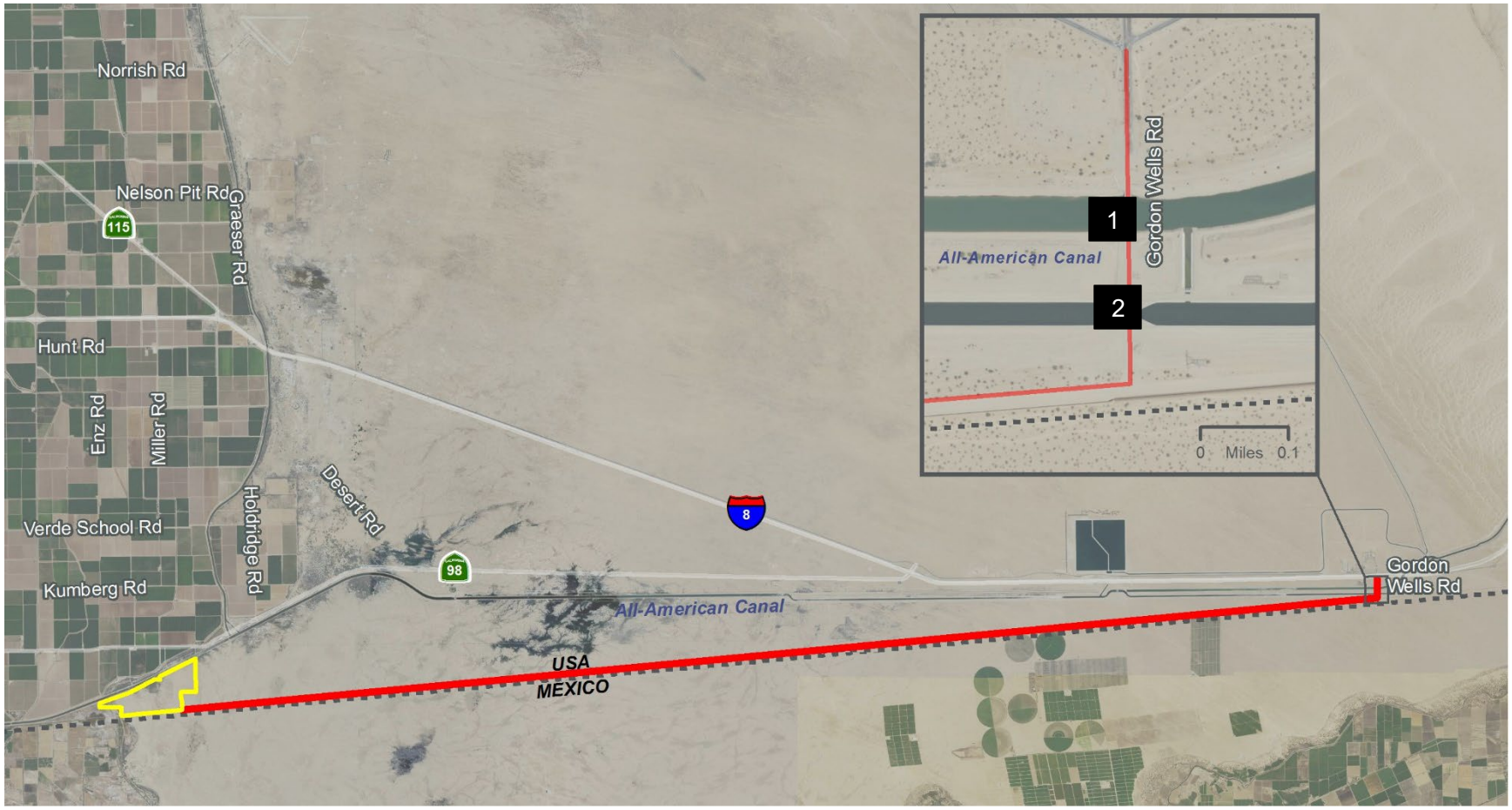

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Figure 3.13-2. Proposed Bridge Crossings over All-American Canal

Bridge over north American Canal

Bridge over south American Canal

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3.14 Tribal Cultural Resources

This section discusses tribal cultural resources that may be potentially impacted by the proposed project. The following identifies if there are any existing tribal 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 Cultural Resources Inventory prepared by ECORP Consulting, Inc. This report is included in Appendix F of this EIR.

3.14.1 Existing Conditions

Tribal Cultural Setting

See Section 3.6, Cultural Resources of this EIR, for description of the regional ethnohistory.

Records Search

A records search from the SCIC of the CHRIS at San Diego State University was requested on September 15, 2020, to determine the extent of previous surveys within a 1-mile of the project area, and whether previously documented pre-contact or historic-period archaeological sites, architectural resources, or traditional cultural properties exist within the area.

As discussed in Section 3.6, Cultural Resources, because previous surveys took place more than 19 years ago, a resurvey of the project area was conducted and found 6 previously recorded cultural resources within 1-mile of the project area. Previously recorded resources comprise two historic-period canals, one historic-period bridge, one international boundary monument, one multicomponent precontact ceramic scatter/historic-period refuse deposit, and one pre-contact temporary camp with habitation debris. One previously recorded resource, an historic-period refuse deposit, is located within the project area.

Sacred Lands File Results

The California Native American Heritage Commission (NAHC) identifies, catalogs, and protects Native American cultural resources on private and public lands in California. Cultural resources include graves, cemeteries, and places of special religious or social significance to Native Americans. The NAHC also records the historical territories of state recognized tribes into a database called the Sacred Lands File. A records search of the Sacred Lands File is conducted to ensure that the tribes potentially affected by a project are properly notified and consulted.

A Sacred Land Files (SLF) search request was submitted on September 15, 2020, to the California NAHC and the search results were received on September 29, 2020. The search of the SLF was negative and failed to indicate the presence of Native American cultural resources in the project area.

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.

Assembly Bill 2641

AB 2641 requires that upon discover of Native American remains, reasonable protection measures should be taken to protect the discovery from disturbance and the NAHC-designated Most Likely Descendent (MLD) shall be identified. The MLD shall be granted access to the site and given 48 hours to conduct a site inspection and make treatment recommendations. The concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the landowner shall comply with one or more of the following:

(1) Record the site with the NAHC or the appropriate Information Center.

(2) Utilize an open-space or conservation zoning designation or easement.

(3) Record a document with the county in which the property is located.

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 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.

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 5097.98 (b) and (e)

As amended by AB 2641, 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.

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 3.11, Land Use Planning, of this EIR analyzes the proposed 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 3.14-1.

Table 3.14-1. Project Consistency with Applicable General Plan Goals and Objectives

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element - *Open Space and Recreation Conservation* **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. **Objective 1.4** - Ensure the conservation and management of the County's natural and cultural resources.	Consistent	A Cultural Resources Inventory was prepared for the proposed project. Based on the SLF search, there are no known tribal cultural resources within the project area. However, as discussed below, the proposed project has the potential to encounter undocumented tribal cultural resources and Native American human remains. Implementation of Mitigation Measures CR-2 and CR-3 would reduce potentially significant impacts on unknown historic or unique archaeological materials during construction of the project site. Implementation of Mitigation Measure CR-4 would reduce potential impacts on human remains to a level less than significant.
Objective 3.1 - Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Consistent	

Source: County of Imperial 1993; Appendix F of this EIR
Notes:
CR=cultural resource

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

Methodology

This analysis evaluates the potential for the proposed project, as described in Chapter 2, Project Description, to interact with tribal cultural resources in the project site. 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 indicated in the environmental setting, a Cultural Resources Inventory (Appendix F of this EIR) was prepared for the proposed project. The cultural resources inventory provides the results of a SCIC records search, a SLF search conducted by the NAHC, and field survey, which have been completed for the project site pursuant to CEQA.

This report is included in Appendix F of this EIR. The information from the cultural resources inventory 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 tribal 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 3.14-1 ***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. A SLF search request was submitted on September 15, 2020 to the California NAHC and the search results were received on September 29, 2020. The search of the SLF was negative and failed to indicate the presence of Native American cultural resources in the project area. 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, 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 March 26, 2021 to the Quechan Indian Tribe. On April 1, 2021, the Quechan Indian Tribe requested consultation with the County on the proposed project. The County is in the process of consulting with the Quechan Indian Tribe and has requested that they 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 indicated 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 3.6 Cultural Resources, potential impacts to archaeological resources would be less than significant with implementation of Mitigation Measure CR-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 impact is anticipated from restoration activities as the ground disturbance and associated impacts on tribal cultural resources will have occurred during the construction phase of the proposed project.

Residual

No unmitigable impacts on cultural resources would occur with implementation of the proposed project.

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 project. 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. A *Water Supply Assessment* (WSA) was prepared for the VEGA SES 4 Solar Energy Project. This report is included in Appendix L of this EIR.

The IS/NOP prepared for this EIR determined that 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

The Imperial Valley area is located within the south-central part of Imperial County and is bound by Mexico on the south, the Algodones Sand Hills on the east, the Salton Sea on the north and San Diego County on the northwest, and the alluvial fans bordering the Coyote Mountains and the Yuha Desert to the southwest. Imperial Valley depends on the Colorado River for its water, which the Imperial Irrigation District (IID) transports, untreated, to delivery gates for agricultural, municipal, industrial (including geothermal and solar energy), environmental (managed marsh), recreational (lakes), and other non-agricultural uses. IID supplies the cities, communities, institutions and Golden State Water (which includes all or portions Calipatria, Niland, and some adjacent Imperial County territory) with untreated water that they treat to meet state and federal drinking water guidelines before distribution to their customers (Appendix L of this EIR).

Although the project site is currently vacant land and does not currently receive water from IID, the project site is located within IID's Imperial Unit and district boundary and as such is eligible to receive water service. IID has adopted an Interim Water Supply Policy (IWSP) for Non-Agricultural Projects, from which water supplies can be contracted to serve new developments within IID's water service area. The IWSP sets aside 25,000 acre-feet annually (AFY) of IID's Colorado River water supply to serve new non-agricultural projects. As of April 2021, a balance of 23,800 acre-feet per year (AFY) remain available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such projects (Appendix L of this EIR).

3.15.2 Regulatory Setting

This section identifies and summarizes laws, policies, and regulations that are applicable to the proposed 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 solar facility is deemed a “project” because it is a proposed industrial use occupying more than 40 acres of land.

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 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.

Local

Imperial Integrated Regional Water Management Plan

The Imperial Integrated Regional Water Management Plan (IRWMP) serves as the governing document for regional water planning to meet present and future water resource needs and demands by addressing such issues as additional water supply options, demand management and determination and prioritization of uses and classes of service provided. In November 2012, the Imperial County Board of Supervisors approved the Imperial IRWMP, and the City of Imperial City Council and the IID Board of Directors approved it in December 2012. Through the IRWMP process, IID presented to the region stakeholders options in the event long-term water supply augmentation is needed, such as water storage and banking, recycling of municipal wastewater, and desalination of brackish water.

Imperial Irrigation District Interim Water Supply Policy for Non-Agricultural Projects

The IWSP was adopted by the IID Board on September 29, 2009. The IWSP provides a mechanism to address water supply requests for projects being developed within the IID service area. The IWSP designates up to 25,000 AFY of IID's annual Colorado River water supply for new non-agricultural projects, provides a mechanism and process to develop a water supply agreement for any appropriately permitted project, and establishes a framework and set of fees to ensure the supplies used to meet new demands do not adversely affect existing users by funding water conservation or augmentation projects, as needed.

Depending on the nature, complexity, and water demands of the proposed project, new projects may be charged a one-time reservation fee and an annual water supply development fee for the contracted water volume used solely to assist in funding new water supply projects. All new industrial use projects are subject to the fee, while new municipal and mixed-use projects shall be subject to the fee if the project water demands exceed certain district-wide average per capita use standards. The applicability of the fee to mixed-use projects will be determined by IID on a case-by-case basis, depending on the proportion of types of land uses and water demand proposed for a project.

Temporary Land Conversion Fallowing Policy

The Temporary Land Conversion Fallowing Policy was adopted by the Board on October 28, 2013, to provide a mechanism for IID to administer apportionment of the district's quantified annual supply of Colorado River water; IID board approved a resolution repealing the Equitable Distribution Plan (EDP) on February 6, 2018.

In order to facilitate new development and economic diversity in Imperial County; as well as ensure that the long-term, temporary, land use designations are conducive to a coordinated land use/water supply policy as envisioned in the Imperial IRWMP the IID Temporary Land Conversion Fallowing Policy was developed. This policy provides a framework for a temporary, long-term fallowing program to work in concert with the IWSP and provides direction for certain private projects that, if implemented, will temporarily remove land from agricultural production within the district's water service area include renewable solar energy and other non-agricultural projects. Such projects may need a short-term water supply for construction and decommissioning activities and longer-term water service for facility operation and maintenance or for treating to potable water standards.

3.15.3 Impacts and Mitigation Measures

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to utilities and service systems are considered significant if any of 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

The WSA (Appendix L of this EIR) was prepared using project-specific data to calculate the project's water consumption during construction and at build-out collectively ("operational").

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?

CONSTRUCTION

Water for construction would be obtained from IID canals or laterals in conformance with IID rules and regulations for municipal, commercial, and industrial (MCI) temporary water use. Water would be picked up from the All-American Canal and delivered to the construction location by a water truck capable of carrying approximately 4,000 gallons per load.

The proposed project is anticipated to take approximately 18 months from the commencement of the construction process to complete. Construction water needs would be limited to earthwork, soil conditioning, dust suppression, and compaction efforts. The proposed project would require approximately 183.3 AFY of water during construction.

OPERATIONS AND MAINTENANCE

The estimated annual water consumption for operation and maintenance of the proposed project, including periodic PV module washing, would be approximately 10 AFY, which would be trucked to the project site as needed. No full-time site personnel would be required on-site during operations and approximately two employees would only be onsite up to four times per year to wash the solar panels to ensure optimum solar absorption by removing dust particles and other buildup.

TOTAL AND ANNUAL WATER DEMAND

According to the WSA (Appendix L of this EIR), the anticipated water demand for construction and operation project is estimated to be 460 AF, for an annualized demand of 23 AFY for the 20-year project life.

WATER SUPPLY

Water for the project site will be supplied through an IWSP Water Supply Agreement with IID to process the untreated Colorado River water for the proposed project. The IWSP sets aside 25,000 AFY of IID's Colorado River water supply to serve new non-agricultural projects. As of April 2021, a

balance of 23,800 AFY remain available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such projects. The proposed project has an estimated total water demand of 460 AF or 23 AFY amortized over a 20-year term (to be pumped to water trucks directly from the All-American Canal – there would be no diversion through any delivery gates for project). Thus, the proposed project demand is an increase of 23 AFY from the historical 10-year average. There has been no prior delivery for agricultural uses at the project site. The project's water demand of approximately 23 AFY amortized over 20 years represents 0.1 percent of the unallocated supply set aside in the IWSP for non-agricultural projects, and approximately 0.01 percent of forecasted future non-agricultural water demands planned in the Imperial IRWMP through 2055. Therefore, the amount of water available and the stability of the IID water supply along with on-farm and system efficiency conservation and other measures being undertaken by IID and its customers ensures that the project's needs will be met for the next 20 years as assessed for compliance under SB-610. Therefore, the proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources, and impacts would be less than significant.

Mitigation Measure(s)

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. It is anticipated that a small quantity of water would be required during decommissioning of the project and site restoration. This water need would be less than what is required for construction and operation of the project site. Therefore, a less than significant impact is identified and no mitigation is required.

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.

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4 Analysis of Long-Term Effects

4.1 Growth-Inducing Impacts

In accordance with Section 15126.2(d) 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 the expansion, 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.

The proposed 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 September 2022, was 16.0 percent (State of California Employment Development Department 2022). 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 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 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 facilities 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 facility, such actions would likely occur infrequently. Overall, minimal maintenance requirements are anticipated. The proposed 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 project would contribute to energy supply, which indirectly supports population growth, 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. Unlike a gas-fired power plant, the proposed 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 100 that a benefit of the Renewable Portfolio Standard is displacing fossil fuel consumption within the state. The project is being proposed in response to state policy and legislation promoting development of renewable energy.

The proposed 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 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 §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 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 project would not involve the development of any new roadways, new water systems, or sewer; and thus, the project would not further facilitate additional development into outlying areas. For these reasons, the proposed project would not be growth-inducing.

4.2 Significant Irreversible Environmental Changes

In accordance with CEQA Guidelines Section 15126.2(c), 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.

Energy resources needed for the construction of the proposed 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 project would irretrievably commit resources over the anticipated 30-year life of the project.

At the end of the project's operation term, the applicant may determine that the project should be decommissioned and deconstructed. Should the 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 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 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.

4.3 Unavoidable Adverse Impacts

In accordance with CEQA Guidelines Section 15126(b), EIRs must include a discussion of significant environmental effects that cannot be avoided if the proposed project is implemented. The impact analysis, as detailed in Section 3 of this EIR, concludes that no unavoidable 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.

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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. Figure 5-1 provides the general location for each of these projects in relation to the project site.

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. Figure 5-1 provides the general location for each of these projects in relation to the project site.

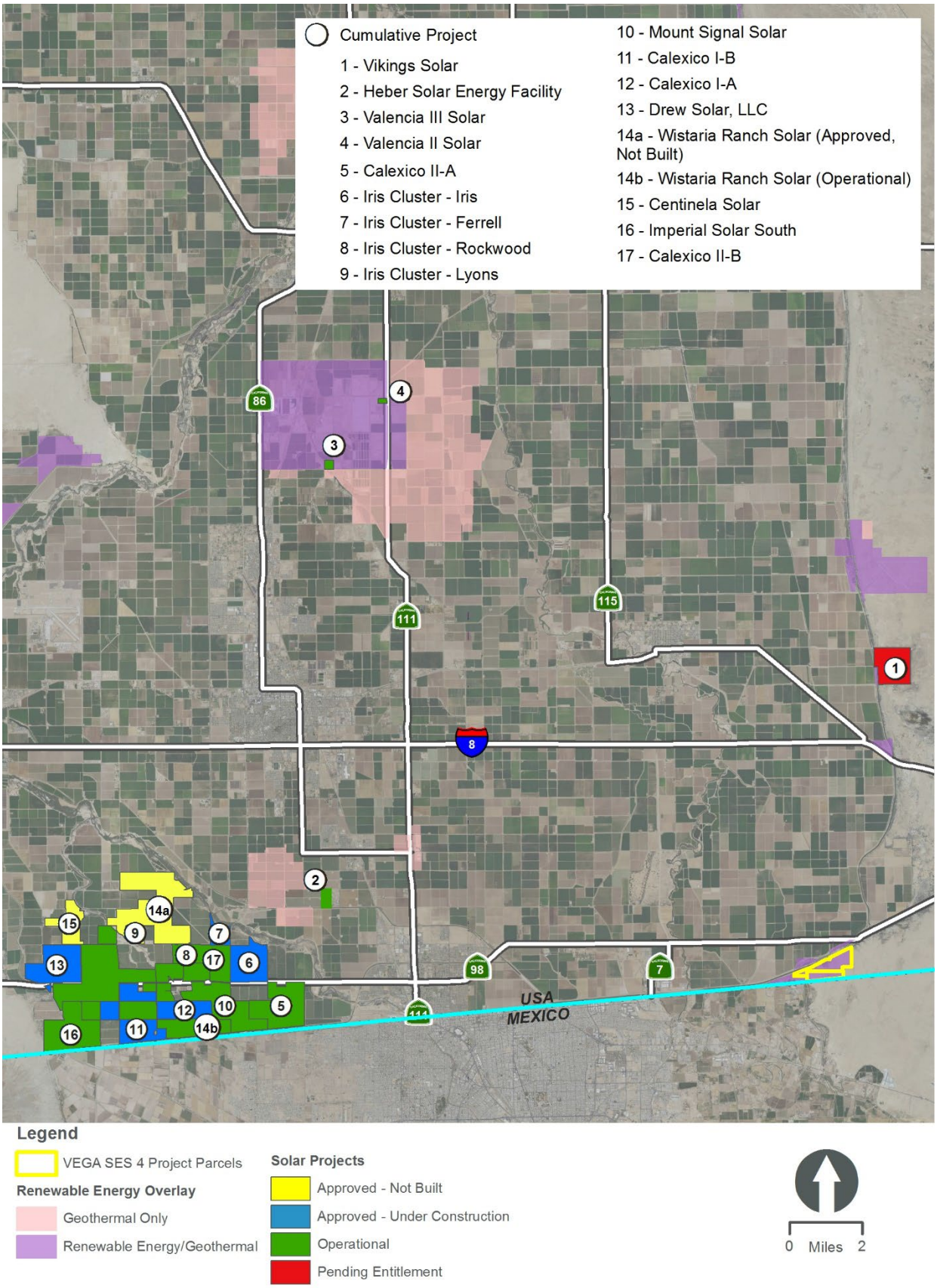
Table 5-1. Projects Considered in the Cumulative Impact Analysis

Map Label[1]	Project Name	Project Type	Distance from Project Site (miles)	Capacity (MW)	Status[2]
1	Vikings Solar	PV Solar Facility	3.0	150	Pending Entitlement
2	Heber Solar Energy Facility	PV Solar Facility	5.1	14	Operational
3	Valencia III Solar	PV Solar Facility	7.1	3	Operational
4	Valencia II Solar	PV Solar Facility	7.2	3	Operational
5	Calexico II-A	PV Solar Facility	5.5	200	Operational
6	Iris Cluster – Iris Solar Facility	PV Solar Facility	5.8	130	Approved – Under Construction
7	Iris Cluster – Ferrell Solar Facility	PV Solar Facility	6.1	90	Approved – Under Construction
8	Iris Cluster - Rockwood	PV Solar Facility	6.4	100	Operational
9	Iris Cluster - Lyons	PV Solar Facility	6.9	40	Approved – Not Built
10	Mount Signal Solar	PV Solar Facility	6.4	800	Operational
11	Calexico I-B	PV Solar Facility	7.0	100	Approved – Under Construction
12	Calexico I-A	PV Solar Facility	6.6	100	Approved – Under Construction
13	Drew Solar	PV Solar Facility	7.7	100	Approved – Under Construction
14a	Wistaria Ranch Solar (Approved, Not Built)	PV Solar Facility	6.6	250	Approved – Not Built
14b	Wistaria Ranch Solar (Operational)	PV Solar Facility	6.8	250	Operational
15	Centinela Solar	PV Solar Facility	7.6	275	Approved – Not Built
16	Imperial Solar South	PV Solar Facility	7.6	130	Operational
17	Calexico II-B	PV Solar Facility	6.1	200	Operational

1 – See Figure 5-1 for cumulative project location.

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 in November 2022.

Figure 5-1. Cumulative Projects



5.3.1 Aesthetics and Visual Resources

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, battery storage containers, an electrical distribution and transmission system, and substation.

As discussed in Section 3.2, Aesthetics and Visual Resources, visibility of the project site from the public right of way is obstructed from SR-98 by a berm. Surrounding property is privately owned and viewers would be limited to private property owners, employees servicing/maintaining IID facilities (e.g., the All-American Canal), and U.S. Border Patrol personnel.

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 its existing condition following the decommissioning of the solar uses. 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 Agricultural Resources

Cumulative impacts on agricultural resources take into account the proposed project's temporary impacts as well as those likely to occur as a result of other existing, proposed, and reasonably foreseeable projects. To determine cumulative impacts on agricultural resources, an assessment is made of the temporal nature of the impacts on individual resources (e.g., temporary such as in solar projects versus permanent as in industrial or residential developments) as well as the inventory of agricultural resources within the cumulative setting.

As discussed in Section 3.3, Agricultural Resources, the project does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Therefore, the proposed project would not convert land designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to non-agricultural uses or incrementally add to the conversion of agricultural land in Imperial County on a temporary or permanent basis. Furthermore, the project site is located within the Renewable

Energy Zone and is, therefore, considered an appropriate use in this area. Additionally, as a condition of project approval (CUP condition), the project applicant or its successor in interest will be responsible for implementing a reclamation plan when the project is decommissioned at the end of its lifespan.

A portion of the project site is designated as Farmland of Local Importance. It should be noted that analysis of Other Land and Farmland of Local Importance is not required under CEQA significance criteria, as these designations are not considered an "agricultural land" per CEQA Statute Section 21060.1(a). However, in terms of preservation of agricultural land Mitigation Measure AG-1 would be implemented to reduce potential impacts related to pests to a less than significant level. Each individual cumulative project would be or would have been required to provide mitigation for any impacts on agricultural resources in accordance with the County's policies directed at mitigating the impact associated with the conversion of important farmlands. Therefore, the project's contribution to this impact would be less than cumulatively considerable.

5.3.3 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 large-scale 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, several of the projects listed in Table 5-1 are already constructed and in operation. Furthermore, the remaining cumulative projects are currently under construction, or approved and not built (Iris Cluster – Lyons and Centinela Solar), 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 O_3 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 PM_{10}, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. With respect to PM_{10}, 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 (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 ROG, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions during each active day of construction. As discussed in Section 3.4, Air Quality, the project's daily construction emissions would not exceed the ICAPCD thresholds for ROG, NOx, CO, SO_2, and $PM_{2.5}$. However, the project would exceed the ICAPCD threshold for PM_{10} and represents a significant air quality impact. The project's impact could be cumulatively considerable because the Imperial County portion of the SSAB are nonattainment already for O_3 and PM_{10} under state standards and for O_3 and $PM_{2.5}$ federal standards. Thus, existing O_3 and PM_{10} 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. Furthermore, the remaining cumulative projects, with exception of the Vikings Solar, Iris Cluster – Lyons, and Centinela Solar Projects, are currently under construction and not anticipated to involve overlapping construction activities with the proposed project. In the event the proposed project is constructed in conjunction with the Vikings Solar Project (pending entitlement), Iris Cluster – Lyons (approved but not built), and Centinela Solar Project (approved but not built), 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 (PM_{10}) 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 O_3, $PM_{2.5}$ and PM_{10} emissions during operation of the cumulative projects is a consideration because existing O_3 and PM_{10} 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 O_3, $PM_{2.5}$ and PM_{10} 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 project would not result in cumulatively significant air quality impacts, and cumulative impacts would be less than significant.

5.3.4 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 implementation of Mitigation Measures BIO-1 to BIO-7 (Section 3.5, Biological Resources) which require compliance with all applicable regulations that protect plant, fish, and animal species. 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 3.5, Biological Resources, the project has the potential to result in impacts on biological resources. These impacts are generally focused on potential construction-related effects to special-status plant species and wildlife.

The proposed project has been designed to avoid impacts to the riparian habitat, disturbed riparian habitat, and tamarisk thickets (CDFW sensitive natural community) within the project site. However, 14 special-status plant species that have the potential to occur within the project site. 11 of these plant species have a low potential to occur due to limited suitable habitat. Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species were determined to have moderate potential to occur: Abram's spurge (CRPR 2B.2), Wiggins' croton (CRPR 2B.2), and sand food (CRPR 1B.2). Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce project impacts to a level less than significant.

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. Additionally, as provided in Section 3.5, 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 protected species could be harmed. However, with the

implementation of Mitigation Measures BIO-2 through BIO-7, as identified in Section 3.5, Biological Resources, these impacts would be reduced to a level of less than significant.

As with the proposed project, the cumulative projects within the geographic scope of the project would be required to comply with the legal framework and provide mitigation for impacts on biological resources as described above. Based on these considerations, impacts on biological resources would not be cumulatively considerable.

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. Freshwater forested/shrub wetland are present within the project site. Additionally, perennial and ephemeral drainage features are also present and convey flows in the wetlands within and around the All-American Canal. As such, these drainage features would likely be considered federally and state jurisdictional. However, the proposed project has been designed to avoid impacts to aquatic resources. As shown on the Site Plan (Figure 2-3), project components would not be sited on the project site where aquatic resources are present. Therefore, implementation of the project would result in no impact on state or federally protected aquatic resources.

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.

5.3.5 Cultural Resources

As discussed in Section 3.6, Cultural Resources, five cultural resources are being treated as eligible for listing in the CRHR as historical resources. However, the project has been designed to avoid all five historical resources and Mitigation Measure CR-1 will be implemented to ensure the sites are avoided during construction. Mitigation Measure CR-1 requires the installation of orange environmentally sensitive area fencing or flagging around the boundaries of each of the resources prior to any construction activity and shall remain in place throughout project construction. Further, in the event that unknown cultural resources are discovered during project construction, significant impacts could occur. Therefore, Mitigation Measure CR-2 would be implemented to reduce potential impacts to previously unrecorded cultural resources to a level less than significant.

The potential of finding a buried archaeological site during construction is considered low. However, like all construction projects in the state, the possibility exists. This potential impact is considered significant. Implementation of Mitigation Measure CR-3 would reduce potential impacts associated with the unanticipated discovery of unknown buried archaeological resources. Additionally, implementation of Mitigation Measure CR-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 CR-1 through CR-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.

5.3.6 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 and mineral resources. 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 compounded with the project's site-specific geology and soils impacts which would be addressed by a site-specific geotechnical report per Mitigation Measure GEO-1. 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.

5.3.7 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. The ICAPCD has not adopted a GHG significance threshold. Thus, in the absence of any GHG emissions significance thresholds, the projected emissions of the project are compared to the Mojave Desert Air Quality Management District (MDAQMD) numeric threshold of 100,000 metric tons of CO_2e annually. While significance thresholds used in the Mojave Desert Air Basin are not binding on the ICAPCD or County of Imperial, they are instructive as a comparative metric of the project's potential GHG impact. This threshold is also appropriate as the MDAQMD GHG thresholds were 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.

As discussed in Section 3.8, Greenhouse Gas Emissions, the proposed project's CO_2 emissions would not exceed MDAQMD's threshold of 100,000 $MTCO_2e$ per year. As the project's emissions do not exceed the MDAQMD's significance 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 consist of utility-scale solar facilities. Like the project, the nature of these projects 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 and 100 percent by 2045. 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; therefore, project-related GHG impacts would not be cumulatively considerable.

5.3.8 Hazards/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.

5.3.9 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 project, future 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 preparing a drainage plan that would implement site design, source control, and treatment control BMPs per Mitigation Measure HYD-2. Future cumulative projects may also be required to comply 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 proposed solar energy facility, gen-tie line, and access roads located on the western portion of 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. As such, the project would not result in a significant cumulatively considerable impact on floodplains by constructing new facilities within an identified flood hazard zone.

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.

5.3.10 Land Use 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 cumulative impacts.

As provided in Section 3.11, 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 3.11, Land Use/Planning, the project would not conflict with the goals and objectives of the County of Imperial General Plan. With approval of a CUP for the project, the proposed project would not conflict with the County's zoning ordinance. In addition, 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, similar to the project, 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, 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.

5.3.11 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 regard to noise and vibration would have the potential to be considered in a cumulative context with the project's incremental contribution.

Several of the projects listed in Table 5-1 are already constructed and in operation. Furthermore, the remaining cumulative projects, with exception of the Vikings Solar, Iris Cluster – Lyons, and Centinela Solar Projects, are currently under construction and not anticipated to involve overlapping construction activities with the proposed project. As discussed in Section 3.12, Noise and Vibration, the project's noise levels would not exceed the County's 75 dBA L_{eq} construction noise threshold. Therefore, impacts from construction noise are considered less than significant. 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 projects in Section 3.12, Noise and Vibration. For the proposed project, no noise impacts have been identified. Operation of the other cumulative projects listed in Table 5-1 could result in the long-term stationary source noise levels that exceed applicable standards at nearby sensitive receptors and/or result in substantial increases in ambient noise levels. However, given that the project facilities would be located at appropriate distances from the residential uses scattered in this portion of the County, long-term operational noise levels are not expected to exceed normally acceptable noise levels for these zones (e.g., 70 dBA L_{dn}). Thus, the incremental contribution of the project to significant cumulative noise impacts would not be cumulatively considerable.

5.3.12 Transportation

During the construction phase of the project, the maximum number of trips generated on a daily basis would be approximately 520 trips. Under construction year conditions with and without the proposed project, all roadway segments analyzed would operate at LOS A or better, all intersections would operate at a LOS B or better during both AM and PM peak hours, and all freeway segments would operate at LOS B 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 projects would only require intermittent maintenance which would result in a nominal amount of vehicle trips generated.

A majority of the projects listed in Table 5-1 are already constructed. Furthermore, the remaining cumulative projects, with exception of the Vikings Solar, Iris Cluster – Lyons, and Centinela Solar Projects, are currently under construction and not anticipated to involve overlapping construction activities with the proposed project. The other cumulative projects would also likely result in a nominal amount of vehicle trips for maintenance and operation as a solar facility. Based on these findings, the proposed 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, a SLF search request was submitted on September 15, 2020 to the California NAHC and the search results were received on September 29, 2020. The search of the SLF was negative and failed to indicate the presence of Native American cultural resources in the project area. Additionally, on April 1, 2021, the Quechan Indian Tribe requested consultation with the County on the proposed project. The County is in the process of consulting with the Quechan Indian Tribe and has requested that they 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. However, the proposed project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 or 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 Section 5024.1.

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. During operations and decommissioning of the project, no impacts on tribal cultural resources are anticipated because the soil disturbance would have already occurred and been mitigated during construction.

5.3.14 Utilities/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 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. Based on the Initial Study and Notice of Preparation prepared for the proposed project (Appendix A of this EIR), Imperial County has determined that the proposed project would not have the potential to cause significant adverse effects associated with the topics identified below. Therefore, these topics are not addressed in this EIR; however, the rationale for eliminating these topics is briefly discussed below.

6.1 Agriculture and Forestry Resources

6.1.1 Forestry Resources

No portion of the project site or the immediate vicinity is zoned or designated as forest lands, timberlands, or timberland production. As such, the proposed project would not result in a conflict with existing zoning or cause the need for a zone change. Therefore, implementation of the proposed project would not impact forestry resources.

6.2 Energy

Information for this section is summarized from the Energy Impact Assessment prepared by ECORP Consulting, Inc. This report is included in Appendix M of this EIR.

6.2.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear. IID, the sixth largest electrical utility in California serving more than 150,000 customers in the Imperial Valley and parts of Riverside and San Diego counties, provides electrical services to the project area. IID controls more than 1,100 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. Located in a region with abundant sunshine, enviable geothermal capacity, wind and other renewable potential, IID has met or exceeded all Renewable Portfolio Standard requirements to date, procuring renewable energy from diverse sources, including biomass, biowaste, geothermal, hydroelectric, solar and wind (Appendix M of this EIR).

The Southern California Gas Company provides natural gas services to Imperial County. As the nation's largest natural gas distribution utility, the Southern California Gas Company delivers natural gas energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. The Southern California Gas Company’s service territory encompasses approximately 20,000 square miles throughout Central and Southern California, from Visalia to the Mexican border (Appendix M of this EIR).

6.2.2 Imperial County Energy Consumption

Electricity

The electricity consumption associated with all uses in Imperial County from 2015 to 2019 is shown in Table 6-1. As shown, the demand has remained constant since 2015.

Table 6-1. Electricity Consumption in Imperial County 2015–2019

Year	Electricity Consumption (kilowatt hours)
2019	1,415,790,908
2018	1,467,590,638
2017	1,445,167,336
2016	1,440,493,016
2015	1,419,088,130

Source: Appendix M of this EIR

Natural Gas

The natural gas consumption associated with all uses in Imperial County from 2015 to 2019 is shown in Table 6-2. As shown, the demand has increased since 2015.

Table 6-2. Natural Gas Consumption in Imperial County 2015–2019

Year	Natural Gas Consumption (therms)
2019	42,914,053
2018	38,729,625
2017	40,442,318
2016	36,089,854
2015	31,494,256

Source: Appendix M of this EIR

Automotive Fuel Consumption

Automotive fuel consumption in Imperial County from 2016 to 2020 is shown in Table 6-3. As shown, fuel consumption has decreased between 2016 and 2020.

Table 6-3. Automotive Fuel Consumption in Imperial County 2016–2020

Year	Total Fuel Consumption (gallons)
2020	196,177,597
2019	198,822,094
2018	201,793,138
2017	204,312,157
2016	208,822,214

Source: Appendix M of this EIR

6.2.3 Proposed Project Energy Consumption

The project is proposing the development of a 100 MW alternating current PV energy generation system with an integrated 100 MW battery system. Operation of the proposed project would not result in the consumption of electricity or natural gas and thus, would not contribute to the County wide usage and would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources.

Therefore, the energy analysis focuses on the two sources of energy that are most relevant to the project: the equipment fuel necessary for construction and the automotive fuel necessary for ongoing maintenance activities. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. The amount of operational fuel use was estimated using CARB's EMFAC2017 computer program, which provides projections for typical daily fuel usage in Imperial County. This analysis conservatively assumes that all of the automobile trips projected to arrive at the project site during operations would be new to Imperial County.

Energy consumption associated with the proposed project is summarized in Table 6-4. Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2020 (Table 6-3), the most recent full year of data.

Table 6-4. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption	0 kilowatt-hours	0.00000 percent
Natural Gas	0 therms	0.00000 percent
Automotive Fuel Consumption		
Project Construction 2022	77,931 gallons	0.03971 percent
Project Construction 2023	45,123 gallons	0.02299 percent
Project Operations	128 gallons	0.00006 percent

Source: Appendix M of this EIR
Notes: The project increases in electricity and natural gas consumption are compared with all uses in Imperial County in 2019, the latest data available. The project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2020, the most recent full year of data.

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 shown in Table 6-4, the project's gasoline fuel consumption during the onetime construction period is estimated to be 77,931 gallons during 2022 construction and 45,123 gallons during 2023 construction. This would increase the annual countywide gasoline fuel use in the county by 0.03971 percent and 0.02299 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 project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Once construction is completed the project would be remotely controlled. No employees would be based at the project site. The only operational emissions associated with the project would be associated with motor vehicle use for routine maintenance work and site security as well as panel upkeep and cleaning. A conservative estimate of one vehicle trip per day generated by the project was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As shown in Table 6-4, this would estimate to a consumption of approximately 128 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.00006 percent. Fuel consumption associated with both the construction equipment needed to construction the project and the vehicle trips generated by the project during ongoing maintenance activities would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. The proposed project would result in a less than significant impact related to energy.

6.2.4 Compliance with State or Local Plans for Renewable Energy or Energy Efficiency

The purpose of the proposed 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. Therefore, the project would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources. Additionally, the 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 project would directly support state and local plans for renewable energy development. The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, no impact would occur.

6.3 Mineral Resources

The 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 project site nor does the project site contain mapped mineral resources. Therefore, the proposed 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 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 is a plugged and abandoned well (Well No. 02590233) located in the north-central portion of the project site (APN 059-300-015) (California Department of Oil, Gas, and Geothermal Resources 2021). The well is located on a portion of the project site that would remain undeveloped (identified as non-usable land on the Site Plan [Figure 2-3]) and thereby avoided by the proposed project. Therefore, implementation of the proposed project would not impact any wells.

6.4 Population and Housing

Development of housing is not proposed as part of the project. No full-time employees are required to operate the 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. On intermittent occasions, the presence of additional workers may be required for repairs or replacement of equipment and panel cleaning; however, due to the nature of the facility, such actions will likely occur infrequently. Therefore, the proposed 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 project site and no people reside within the project site. Therefore, the proposed project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. The proposed project would result in no impact to population and housing.

6.5 Public Services

Fire Protection. Fire protection and emergency medical services in the area are provided by the Imperial County Fire Department. The 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. Both the access and service roads (along the perimeter of the project facility) would have turnaround areas to allow clearance for fire trucks per fire department standards. Although the proposed 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, battery storage system fire prevention and control components), and emergency response site access, so that adequate service is maintained. While the proposed project may result in an increase in demand for fire protection service, with installation of internal fire prevention systems and ICFD consultation, including adherence to any special conditions regarding fire control and access, the 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 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 and would therefore be less than significant.

Police Protection. Police protection services in the project area is provided by the Imperial County Sheriff's Department. Although the potential is low, the proposed project may attract vandals or other security risks. The increase in construction related traffic could increase demand on law enforcement services. However, the project site would be fenced with 6-foot high chain link security fence and points of ingress/egress would be accessed via locked gates. In addition, periodic on-site personnel

visitations for security would occur during operations and maintenance of the proposed project, thereby minimizing the need for police surveillance. While the proposed project may result in a temporary increase in demand for law enforcement service, the 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. Further, 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 required by the Board of Supervisors prior to the issuance of the first building permit. These potential impacts are less than significant.

Schools. The proposed 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 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 project would have no impact on Imperial County schools.

Parks and Other Public Facilities. No full-time employees are required to operate the 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 project is not expected to have an impact on parks, libraries, and other public facilities.

6.6 Recreation

The project site is not used for formal recreational purposes. Also, the proposed project would not generate new employment on a long-term basis. As such, the 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 project does not include or require the expansion of recreational facilities. Therefore, no impact is identified for recreation.

6.7 Utilities and Service Systems

Wastewater Facilities. The 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 project site, such as O&M buildings; therefore, there would be no wastewater generation from the proposed project. The proposed project would not require or result in the relocation or construction of new or expanded wastewater facilities.

Storm Water Facilities. The proposed project will involve the construction of drainage control facilities within the project site, and included in the project impact footprint, of which environmental impacts have been evaluated. Otherwise, the 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 surface that would increase runoff during storm events, and therefore, 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 a majority of the surfaces within the project site would remain pervious. The proposed 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 project and evaluated in the EIR.

Water Facilities. The proposed 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 project site from a local water source. Therefore, the proposed 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 project would involve construction of power facilities. However, these are components of the project as evaluated in the EIR. The proposed 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 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 Calexico Solid Waste Site (13-AA-0004) located approximately 13 miles west of the proposed project in Calexico. As of August 1, 2019, the Calexico Solid Waste Site has approximately 1,561,235 cubic yards of remaining capacity and is estimated to remain in operation through 2179 (CalRecycle 2021). Therefore, there is ample landfill capacity in the County to receive the minor amount of solid waste generated by construction and operation of the proposed project.

Additionally, because the proposed project would generate solid waste during construction and operation, the project would be required to comply with 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. Also, conditions of the CUP would contain provisions for recycling and diversion of Imperial County construction waste policies.

Further, when the proposed 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 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.

6.8 Wildfire

According to the Draft Fire Hazard Severity Zone Map for Imperial County prepared by the California Department of Forestry and Fire Protection, the project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection 2007). Therefore, the proposed 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.

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 100-megawatt (MW) alternating current (AC) of electricity to assist the State of California in achieving its 60 percent renewable portfolio standard by 2030.
- Provide a 100 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.

- Interconnect directly to IID's existing electrical transmission system.
- Help California meet its statutory and regulatory goal of increasing renewable power generation, including greenhouse gas reduction goals of Senate Bill 32.
- 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 considered 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.

7.3.2 Original Site Plan Submittal

The project applicant originally proposed to construct and operate a 100 MW solar energy facility with an integrated 100 MW battery storage system on approximately 531 acres (APNs 059-290-010, 059-300-015, and 059-300-017). Based on a biological reconnaissance survey of the 531-acre site, the following sensitive vegetation communities were found to be present on the western parcel (APN 059-209-010): arrow weed thickets, tamarisk thickets, and alkali weed – salt grass playas and sinks. Furthermore, one freshwater emergent wetland occurs on the western parcel. To minimize impacts on biological resources, the project applicant re-designed the project to remove the western parcel (APN 059-209-010). The western parcel would not be developed. This re-design reduced the original project site from 531 acres to 450 acres.

The original site plan on 531 acres would result in increased biological resources impacts and increased jurisdictional water impacts compared to the proposed project. Therefore, the County rejects to original site plan from further analysis.

7.3.3 Original Access Route for Heavy Construction Equipment

The project applicant's originally proposed access route for heavy construction equipment was via State Route 98 east to the East Highline Check of the All-American Canal bridge crossing to the project

entrance. After coordination with the IID, IID determined that the bridge crossing would not be able to handle the weight of heavy construction equipment.

Although the use of the original access route would be a shorter distance to the project site and would result in less miles traveled, the County rejects the original access route from further analysis due to increased hazards and safety impacts.

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 and Visual Resources

Under the No Project/No Development Alternative, the project site would not be developed and would continue to be undeveloped, partially disturbed 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.

Agricultural Resources

Under the No Project/No Development Alternative, the project site would not be developed and continue to be undeveloped, partially disturbed land. Compared to the proposed project, implementation of this alternative would avoid the temporary conversion of land designated as Other Land and Farmland of Local Importance per the Farmland Mapping and Monitoring Program (FMMP) to non-agricultural uses. However, as previously indicated, these designations are not considered an "agricultural land" per CEQA Statute Section 21060.1(a). Therefore, this alternative would not contribute to the conversion of agricultural lands or otherwise adversely affect agricultural operations. Compared to the proposed project, this alternative would avoid the need for future restoration of the project site to pre-project conditions.

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 3.4, Air Quality, the proposed project would not exceed the ICAPCD's significance thresholds for emissions of ROG, CO, NOx, and $PM_{2.5}$ during both the construction and operational phases of the project. However, the project would exceed the ICAPCD threshold for $PM_{10.}$ 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 (Mitigation Measure AQ-1). With the implementation of the ICAPCD Regulation VIII requirements (Mitigation Measure AQ-1), the project would not exceed the ICAPCD's thresholds of significance for PM_{10} emissions. 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 Abram's spurge, burrowing owl, and other migratory birds, 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 impact known historical resources and 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), liquefaction, lateral spreading, collapsible soils, 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, liquefaction, collapsible soils, 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 (amortized over 30 years) 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. Compared to the proposed project, from a drainage perspective, this alternative would avoid changes to existing hydrology. Under this alternative, there would be no water demand. 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 3.12, 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.

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 project site to minimize impacts on biological resources by increasing the setback of the project from sensitive vegetation communities and aquatic resources. Tamarisk thickets, identified by CDFW as a sensitive natural community, have been mapped on the northern parcel (APN 059-300-015) of the project site. Freshwater forested/shrub wetland, riparian habitat, and disturbed riparian habitat have also been mapped on the northern parcel of the project site. This alternative would remove the northern parcel (APN 059-300-015), thereby reducing the project site by 301 acres from 450 acres to 149 acres.

7.5.1 Environmental Impact of Alternative 2: Reduced Project Site

Aesthetics and Visual Resources

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 site or add a substantial amount of light and glare. As such, this alternative would not avoid or reduce any significant impacts identified for the project and the aesthetic impact would be similar to the proposed project.

Agricultural Resources

Under Alternative 2, the overall size of the solar energy facility would be reduced. This alternative would reduce the temporary conversion of land designated as Other Land and Farmland of Local Importance. However, as previously indicated, these designations are not considered an "agricultural land" per CEQA Statute Section 21060.1(a). Therefore, similar to the proposed project, this alternative would not contribute to the conversion of agricultural lands or otherwise adversely affect agricultural operations. Similar to the proposed project, the need for future restoration of the project site to pre-project conditions would be required under this alternative.

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. Similar to the proposed project, this alternative would be required to comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. Similar to the proposed project, this alternative would be consistent with existing AQAPs 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.

Biological Resources

Under Alternative 2, the overall size of the solar energy facility would be reduced by 301 acres. Under Alternative 2, impacts on biological resources would be reduced by increasing the setback of the project from sensitive vegetation communities (tamarisk thickets) and aquatic resources (freshwater forested/shrub wetland, riparian habitat, and disturbed riparian habitat). Although the overall size of the solar energy facility would be reduced, there is still potential for impacts on special-status species such as Abram's spurge and burrowing owl. Compared to the proposed project, this alternative would result in a reduction in impacts on biological resources but would still require mitigation.

Cultural Resources

Although the overall size of the solar energy facility would be reduced by 301 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. 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.

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. This alternative would still be subject to potential impacts related to strong ground shaking, liquefaction, soil erosion, collapsible soils, expansive soils, and paleontological resources, and would require the incorporation of mitigation measures 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 301 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 $MTCO_2e$. Compared to the proposed project, 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. Also, as with the proposed project, because the Phase I ESA prepared for the proposed project did not identify and on-site RECs, ASTs, or USTs, this alternative would not avoid or reduce impacts associated with

hazardous materials. Further, 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. Similar to the proposed project, no impacts would result from flooding and facilities will not be placed within floodplains. 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.

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

As shown on Table 7-1, this alternative would reduce impacts to agricultural resources, air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems.

Comparison of Alternative 2: Reduced Project Site

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 100 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 on Table 7-1, Alternative 2 would reduce impacts for the following environmental issue areas as compared to the proposed project: agricultural resources, air quality, biological resources, cultural resources, hydrology/water quality, and utilities/service systems. Therefore, Alternative 2 is considered the Environmentally Superior Alternative.

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	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Agricultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact (Avoid)*	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Air Quality	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Biological Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Cultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact

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
Geology and Soils	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Similar Impact
GHG Emissions	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Hazards and Hazardous Materials	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Hydrology/ Water Quality	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Land Use/Planning	No Impact	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Similar Impact	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Similar Impact

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
Noise and Vibration	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *Less Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Transportation	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Tribal Cultural Resources	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Utilities/Service Systems	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* Less Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Less Impact

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9 EIR Preparers and Persons and Organizations Contacted

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Phase I Environmental Site Assessment

KOA

Traffic Impact Study

9.2 Persons and Organizations Contacted

The following persons and organizations were contacted in preparation of this document:

- Imperial Irrigation District
- U.S Border Patrol

- Bureau of Reclamation
- Quechan Indian Tribe, Fort Yuma Indian Reservation