Draft Environmental Impact Report

Big Rock 2 Cluster Solar and Storage Project

SCH No. 2024090063

Imperial County, California

April 2025

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 Big Rock 2 Cluster Solar and Storage Project (i.e., "project" or "proposed project") and to propose mitigation measures, where required, to reduce significant impacts.

Project Overview

The project applicant, 90FI 8me LLC, is seeking approval of four Conditional Use Permits (CUPs), a General Plan amendment, Zone Change, and five variance requests associated with the construction and operation of a utility-scale photovoltaic (PV) solar energy generation and battery energy storage system (BESS) facility on approximately 1,849 acres of privately-owned land in the unincorporated area of Imperial County, California. The proposed project involves utilizing approximately 1,569 acres of land that has not previously been entitled for solar development, as well as 280 acres of land that was previously entitled under active CUPs known as Laurel Cluster 2 North (120 acres), and Laurel Cluster 2 South (160 acres). The Laurel Cluster 2 North and Laurel Cluster 2 South will be re-entitled as part of the proposed project. The four CUP applications or individual site locations consists of the following:

- Big Rock 2 Cluster North: CUP 24-0006
- Big Rock 2 Cluster South: CUP 24-007
- Big Rock 2 Cluster East/Laurel Cluster South (herein referred to as Big Rock Cluster East): CUP 24-0008
- Big Rock 2 Cluster West: CUP 24-0009

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) BESS; and, 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the Imperial Irrigation District's (IID) existing Liebert Switchyard. The solar energy facility, BESS and gen-tie are collectively referred to as the "proposed project" or "project."

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

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 (Schools and Parks/Other Public Facilities), Recreation, Utilities (Wastewater, Stormwater, Power, 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 and Planning
- Noise and Vibration
- Public Services (Fire Protection and Police Protection)
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems (Water Supply)

Table ES-1 summarizes the 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 known to the Lead Agency, including issues raised by other agencies and the public as well as issues to be resolved. A primary issue associated with this solar farm project, and other solar facility projects that are proposed in the County, is the corresponding land use compatibility and fiscal/economic impacts to the County. Through the environmental review process for this project, other areas of concern and issues to be resolved include potential impacts related to the conversion of farmland to non-agricultural uses, damage to crops, wildlife, water supply, fire hazards associated with the battery energy storage system, health effects from air pollution, noise and hazardous materials, and change of visual character.

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

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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 3.3-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use	Potentially Significant	**AG-1a**	**Payment of Agricultural and Other Benefit Fees.** Prior to the issuance of a grading permit or building permit for the project, one of the following options included below shall be implemented: **Mitigation for Non-Prime Farmland** **Option 1:** *Provide Agricultural Conservation Easement(s).* The Permittee shall procure Agricultural Conservation Easements on a "1 on 1" basis on land of equal size, of equal quality farmland, outside the path of development. The conservation easement shall meet DOC regulations and shall be recorded prior to issuance of any grading or building permits; or **Option 2:** *Pay Agricultural In-Lieu Mitigation Fee.* The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 20 percent of the fair market value per acre for the total acres of the proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Imperial County Agricultural Commissioner's office and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County; or, **Option 3:** *Public Benefit Agreement.* The Permittee and County voluntarily enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that is 1) consistent with Board Resolution 2023-#17; and 2) must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation and enhancement of agricultural lands within Imperial County and to implement the	Less than Significant

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		goals and objectives of the Agricultural Benefit program (as amended by the Board of Supervisors on November 7, 2023: Resolution "Amending the Public Benefit Program for use with Solar Power Plants in Imperial County"), as specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy. **Mitigation for Prime Farmland** **Option 1:** *Provide Agricultural Conservation Easement(s).* The Permittee shall procure Agricultural Conservation Easements on a "2 on 1" basis on land of equal size, of equal quality farmland, outside the path of development. The conservation easement shall meet DOC regulations and shall be recorded prior to issuance of any grading or building permits; or **Option 2:** *Pay Agricultural In-Lieu Mitigation Fee.* The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 30 percent of the fair market value per acre for the total acres of the proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Imperial County Agricultural Commissioner's office and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County; or, **Option 3:** *Public Benefit Agreement.* The Permittee and County voluntarily enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that 1) is consistent with Board Resolution 2023-#17; and 2) must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation and enhancement of agricultural lands within Imperial County and to implement the	

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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	Potentially Significant	Implement Mitigation Measure AG-1b. **AG-2** **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	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
		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	

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		(current and previous if changed), and methods used. For pesticides include the chemical(s) used, Environmental Protection Agency (EPA) Registration numbers, and application rates. 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 reasonable 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 projects. 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 3.4-2: Result in a cumulatively considerable net	Significant	**AQ-1** **Fugitive Dust Control.** Pursuant to Imperial County Air Pollution Control District (ICAPCD), all construction sites,	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
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)		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 project applicant is required to implement all standard mitigation measures as well as any feasible discretionary and enhanced measures from the ICAPCD CEQA Handbook listed below prior to and during construction. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process. <u>ICAPCD Standard Measures for Fugitive Dust (PM_{10}) Control</u> • 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	

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		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. <u>ICAPCD "Discretionary" Measures for Fugitive Dust (PM_{10}) Control</u> • 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.	

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		• 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. <u>Standard Mitigation Measures for Construction Combustion Equipment</u> • 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). <u>Enhanced Mitigation Measures for Construction Equipment</u> 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.	

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Implement activity management (e.g., rescheduling activities to reduce short-term impacts). **AQ-2** **Construction Equipment.** All off-road construction diesel engines not registered under California Air Resources Board's (CARB's) Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, shall meet, at a minimum, the Tier 4 Final California Emission Standards for Off-road Compression-Ignition Engines as specified in CCR, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. In the event a Tier 4 Final engine is not available for any off-road engine larger than 100 horsepower, that engine shall be equipped with retrofit controls that would provide NO_X and particulate matter emissions that are equivalent to Tier 4 engine. Drill rig engines shall meet a minimum of Tier 4 Interim California Emission Standards. 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 the 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. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/square yard of chemical dust suppressant. The project applicant shall apply	

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures		Significance After Mitigation
			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	**Dust Suppression Management Plan.** Prior to any earthmoving activity, the project applicant shall submit an Enhanced Dust Control Plan and obtain ICAPCD and ICPDS approval.	
		AQ-5	**Speed Limit.** During construction and operation of the project, the project applicant shall limit the speed of all vehicles operating onsite on unpaved roads to 15 miles per hour or less.	
		AQ-6	**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.	
Biological Resources				
Impact 3.5-1: Potential impacts on special-status species	Potentially Significant	**BIO-1**	**Burrowing Owl Mitigation.** Burrowing owl currently identified on site shall be mitigated per the guidance of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012) such that (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of	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
		similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals. *Focused Burrowing Owl Surveys* To avoid construction-level impacts to unidentified burrowing owls on-site, qualified biologists shall conduct focused burrowing owl surveys during the breeding and non-breeding season in accordance with the California Department of Fish and Wildlife's (CDFW) 2012 Staff Report on Burrowing Owl Mitigation. The survey shall cover the project site and a 500-foot buffer, where legally accessible. The project applicant shall coordinate with CDFW in the preparation of a Burrowing Owl Protection and Mitigation Plan to allow commencement of disturbance activities on site. A pre-construction survey shall be conducted within 14 days prior to the start of construction activities. *Pre-Construction Survey and Avoidance Measures* Depending on the project activity type and associated disturbance, an avoidance buffer distance of 50 meters (165 feet) to 100 meters (330 feet) during the non-breeding season (September through January) and 100 meters (330 feet) t0 250 meters (825 feet) during the breeding season (February through August) shall be maintained between active burrows and construction activities. A Qualified Biologist (biologist who meets the requirements set forth in CDFW's 2012 Staff Report on Burrowing Owl Mitigation and approved by CDFW) shall monitor the burrowing owls for any sign of distress and adjust the buffers as necessary to ensure no take occurs.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		If construction is to begin during the breeding season, mitigation measures shall be implemented prior to February 1 to discourage nesting by burrowing owls within the Project footprint. As construction continues, any area where owls are sighted shall be subject to frequent surveys by the qualified biologist for burrows before the breeding season begins so that owls can be properly relocated before nesting occurs. Pre-construction take avoidance surveys for this species shall be conducted within 14 days prior to the start of ground disturbance and 24 hours prior to construction to determine the presence or absence of this species within the project footprint. A report shall be submitted by a qualified and agency-approved biologist. The project footprint shall be clearly demarcated in the field by the project engineers and biologist prior to the commencement of the pre-construction take avoidance surveys. The surveys shall follow the protocols provided in the Burrowing Owl Survey Protocol and Mitigation Guidelines, prepared by the California Burrowing Owl Consortium, and following the guidance of the Staff Report on Burrowing Owl Mitigation. *Burrowing Owl Protection and Mitigation Plan* If active burrows are present within the project footprint and avoidance is infeasible, the following mitigation measures shall be implemented. If approved by CDFW through the Burrowing Owl Protection and Mitigation Plan (described below), passive relocation methods are to be used by the qualified biologist to move the owls out of the impact zone. Passive relocation shall only be done in the non-breeding season, where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, in accordance with the guidelines found in the Imperial Irrigation District Artificial Burrow Installation Manual. This includes covering or excavating all burrows and	

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow but will exclude any animals from re-entering the burrow. If burrowing owls exhibit sign of stress in attempting to re-enter the burrow, the one-way-door shall be removed to prevent take of the individual. A period of at least 1 week is required after the relocation effort to allow the birds to leave the impacted area before construction of the area can begin. Only burrows that will be directly impacted by the project shall then be excavated and filled in to prevent their reuse. Off-site "replacement burrow site(s)" must consist of a minimum of two suitable, unoccupied burrows for every burrowing owl or pair to be passively relocated. As the project construction schedule and details are finalized, a qualified biologist shall prepare a Burrowing Owl Protection and Mitigation Plan that will detail the approved, site-specific methodology proposed to avoid, minimize and mitigate impacts on this species. Passive relocation, destruction of burrows, construction of artificial burrows, and a Forage Habitat Plan shall only be completed upon prior approval by and in cooperation with CDFW. The Burrowing Owl Protection and Mitigation Plan shall include success criteria, remedial measures, active monitoring, and an annual report to CDFW, and shall be funded by the project applicant. *Incidental Take Authorization* The project applicant shall seek incidental take authorization from CDFW if incidental "take" of burrowing owl as defined by CDFG Code 86 is determined to be unavoidable and the species is a candidate, threatened or endangered species under CESA at such time. If incidental take authorization from CDFW is required, the measures listed in Mitigation Measure BIO-1 above may be	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		superseded by the incidental take authorization permit requirements, if/as applicable. **BIO-2 Burrowing Owl Habitat Compensation.** The California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl Mitigation requires the acquisition and protection of replacement foraging habitat per pair or unpaired resident bird to offset the loss of foraging and burrow habitat on the project site. Mitigation shall include off-site preservation of the required amount of foraging habitat through a CDFW-approved conservation easement, or an in-lieu fee in an amount approved by CDFW that is sufficient to acquire such conservation easements, or some combination of the two. If incidental take authorization from CDFW is required, the measures listed in Mitigation Measure BIO-1 above may be superseded by the incidental take authorization permit requirements, if/as applicable. **BIO-3 Worker Awareness Program and Ongoing Training.** Prior to project initiation, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Wallet-sized cards summarizing this information shall be provided to all construction, operation, and maintenance personnel. The education program shall include the following aspects: • Biology and status of burrowing owl. • California Department of Fish and Wildlife/U.S. Fish and Wildlife Service regulations. • Protection measures designed to reduce potential impacts on the species.	

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Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• The function of flagging designated authorized work areas. • Reporting procedures to be used if a burrowing owl (dead, alive, injured) is encountered in the field. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance. **BIO-4** **Speed Limit.** During construction, the designated biologist or biological monitor(s) shall evaluate and implement best measures to reduce burrowing owl mortality along access roads. A speed limit of 15 miles per hour shall be enforced on all access roads. In addition, all vehicles required for operations and maintenance must remain on designated access/maintenance roads. **BIO-5** **Migratory Birds and Other Sensitive Non-Migratory Bird Species.** To reduce the potential indirect impact on migratory birds, bats, and raptors, an Avian and Bat Protection Plan (ABPP) shall be prepared following the U.S. Fish and Wildlife Service's guidelines and implemented by the project applicant. This ABPP shall outline conservation measures for construction, operation, and maintenance activities that might reduce potential impacts on bird populations and shall be developed by the project applicant in conjunction with the County of Imperial. Construction conservation measures to be incorporated into the ABPP shall include the following: • Minimizing disturbance to vegetation to the maximum extent practicable.	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, an approved biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat that occurs within the project footprint. Pre-construction nesting surveys will identify any active migratory bird (and other sensitive non-migratory bird) nests. Direct impact on any active migratory bird nest shall be avoided until a qualified biologist determines that the fledglings are independent of the nest. • Minimizing wildfire potential. • Minimizing activities that attract prey and predators. • Controlling non-native plants. Operations and maintenance conservation measures to be incorporated into the ABPP shall include the following: • Incorporating the Avian Powerline Interaction Committee's 2012 guidelines for overhead utilities to minimize avian collisions with transmission facilities. • Minimizing noise. • Minimizing use of outdoor lighting. **BIO-6** **Pre-Construction Bird Surveys and Nest Avoidance.** Vegetation clearing, initial grading and construction within the project site shall take place outside 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).	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		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 qualified avian biologist shall conduct a pre-construction nesting bird survey prior to project-related disturbance within and adjacent to the project area. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nesting locations and nesting behavior (including but not limited to copulation, carrying food or nesting materials, nest building, agitation, aggressive interaction, feigning injury, or distraction displays). The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures. If any active nest is identified, the biologist shall establish an appropriately sized no-work buffer zone around the nest, which will be based upon the biologist's best professional judgment, the birds' displayed behavior (agitation or stress), the nesting species, it's sensitivity to disturbance, nesting stage and expected types, and the intensity and duration of disturbance. The no-work buffer zone shall be clearly marked in a way that does not alert predators. No construction activity shall occur within any no-work buffer zone until a qualified avian biologist determines that the young birds have successfully fledged and the best is deemed active. **BIO-7 Focused Bat Surveys and Bat Management Plan.** A focused bat survey shall be conducted for all suitable roosting and foraging habitat for local or migratory bat species known to the project area, including special-status species, found within the project site shall be surveyed prior to initial site clearing activities. The surveys shall be completed by a qualified bat biologist whose resume shall be reviewed and approved by CDFW. Surveys shall include determination of the approximate	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		size of the colony(s) and species present. At the discretion of the qualified bat biologist, the features being used may be examined using appropriate methods to avoid roost and/or young abandonment due to disturbance. The surveys shall include a combination of nighttime emergence counts and acoustic techniques (full spectrum bat acoustic detectors) appropriate for the roosting habitat and time of year, visual and aural surveys (observation during foraging period), and inspection for suitable habitat and bat sign (e.g. guano). The level of survey effort shall be reassessed based on initial survey findings. If roosting bats, of any status, are found during the surveys, the bats and roosts shall be avoided to the maximum extent practicable with consideration of the most disturbing project activities and their effect. A Bat Management Plan prepared by the qualified bat biologist identifying situation-specific and species-specific avoidance and minimization measures to reduce impacts to roosting and foraging bats shall be prepared for CDFW's review, approval, and implementation prior to the commencement of initial site clearing activities. The Bat Management Plan shall include, as appropriate to the findings of the surveys and roosting habitat affected, a construction schedule to avoid roosting season, spatial and temporal avoidance measures, no-disturbance buffers, passive exclusion of bats outside of the maternity season (if necessary), and identification of species-specific replacement or alternative habitat to mitigate for permanent maternity roosting habitat loss. If roosts cannot be avoided or it is determined that construction activities will cause roost abandonment, a mitigation plan addressing exclusion and passive relocation procedures and impact compensation will be developed. The mitigation plan will be developed in consultation with CDFW and the qualified bat biologist. Roost and foraging habitat shall be replaced in-kind prior to any exclusion. Any exclusion and passive relocation	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		efforts shall avoid periods of sensitive activity (e.g. hibernation or maternity season) and may require several seasons for bats to discover alternative roosting sites.	
Impact 3.5-3: Impact on Jurisdictional Waters	Potentially Significant	Implement Mitigation Measure BIO-3. **BIO-8** **Federal and State Agency Permits.** Prior to impacts occurring to U.S Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW (collectively, the Resource Agencies) jurisdictional aquatic resources, the project applicant or its designee shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement. There must be no net loss of waters or wetlands, and any impacts to wetlands shall be mitigated at a minimum ratio of 1:1 (through creation, restoration and/or enhancement). A suitable mitigation site shall be selected and approved by the Resource Agencies during the permitting process.	Less than Significant
Cultural Resources			
Impact 3.6-2: Impact on archaeological resources	Potentially Significant	**CUL-1** **Cultural Resources Worker Environmental Awareness Program Training.** Prior to project construction, a Cultural Resources Worker Environmental Awareness Program Training shall be developed and implemented to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure,	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
		video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.	
		CUL-2 **Archaeological Monitoring.** Prior to the start of construction, the project applicant shall retain a qualified professional archaeologist, who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a traditionally and culturally affiliated Native American Monitor, to monitor all ground-disturbing activities associated with project construction. Monitoring is not required for placement of equipment or fill inside excavations that were monitored, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). 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. In the event of an unanticipated discovery of archaeological materials during construction, the qualified professional archaeologist shall evaluate the significance of the materials prior to resuming any construction related activities in the vicinity of the find. If a resource is deemed significant by the qualified	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures		Significance After Mitigation
			archaeologist, preservation in place or avoidance of the resource shall be the preferred method of preservation consistent with Public Resources Code section 21083.2(b). If preservation in place or avoidance is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource. The methods and results of the data recovery excavation shall be included in a monitoring report, to be completed by the qualified archaeologist after completion of the project. The monitoring report shall include a description of resources recovered, treatment of the resources, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Upon completion of the project, all appropriate documentation (reports, site records, etc.) shall be submitted to the Imperial County Department of Planning and Development Services and the South Coastal Information Center.	
Impact 3.6-3: Impact on Human Remains	Potentially Significant	**CUL-3**	**Discovery of Human Remains.** In the unlikely event that human remains are discovered during ground-disturbing activities, then the proposed project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98 (NPS 1983).If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Imperial County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Imperial County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend	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
		scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	
Geology and Soils			
Impact 3.7-2: Strong seismic ground shaking	Potentially 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 • 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	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
		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	Potentially Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-5: Substantial soil erosion or the loss of topsoil	Potentially Significant	Implement Mitigation Measure GEO-1 and Mitigation Measure HYD-1.	Less than Significant
Impact 3.7-6: Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project	Potentially Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-7: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property	Potentially Significant	Implement Mitigation Measure GEO-1.	Less than Significant
Impact 3.7-8: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not	Potentially Significant	**GEO-2 Demonstrate Compliance with On-site Wastewater Treatment and Disposal Requirements.** The project's wastewater treatment and disposal system(s) shall demonstrate compliance with the Imperial County performance standards as outlined in Title 9, Division 10, Chapters 4 and 12 of the Imperial Land Use Ordinance. Prior to construction, and again prior to operation, the project applicant will obtain all	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
available for the disposal of wastewater			necessary permits and/or approvals from the Imperial County Public Health Department, Division of Environmental Health. The project applicant shall demonstrate that the system adequately meets County requirements, which have been designed to protect beneficial uses and ensure that applicable water quality standards are not violated. This shall include documentation that the system will not conflict with the Regional Water Quality Control Board's Anti-Degradation Policy.	
Impact 3.7-9: Impact on paleontological resources	Potentially Significant	**GEO-3**	**Paleontological Resources Monitoring.** Prior to commencement of any grading activity in areas of high paleontological sensitivity, the project applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The qualified paleontologist or their representative shall attend the preconstruction meeting and a qualified paleontological monitor shall be present during excavation activities associated with project construction. The depth of excavation that requires paleontological monitoring shall be determined by the paleontological monitor and the construction contractor based on initial observations during construction earth moving. The paleontological monitor will be equipped to salvage fossils as they are unearthed (to help avoid construction delays). Monitors are empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation. Fossil specimens shall be curated by accessioning them into an established, accredited museum repository with permanent retrievable paleontological storage. Costs for laboratory and museum curation fees are the responsibility of the project applicant/proponent. A report of findings with an appended itemized inventory of specimens will be prepared. The report and inventory, when submitted to the Imperial County Department of Planning and Development	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
			Services, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts on paleontological resources.	
		GEO-4	**Paleontological Resources Worker Awareness Program.** Prior to any ground disturbance, the qualified paleontologist shall conduct initial Paleontological Resources Worker Environmental Awareness Program (WEAP) training to all construction personnel, including supervisors, present at the outset of the project construction work phase, for which the Lead Contractor and all subcontractors shall make their personnel available. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to paleontological resources and maintain environmental compliance and be performed periodically for new personnel coming on to the project as needed. The WEAP training can be performed by video or audio presentation following the initial WEAP presentation. An acknowledgement form signed by each worker indicating that WEAP training has been completed shall be kept on record. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the WEAP training and copies of the signed acknowledgement forms shall be submitted to the ICPDS.	
Hydrology/Water Quality				
Impact 3.10-1: Violation of water quality standards	Potentially Significant	**HYD-1**	**Prepare SWPPP and Implement BMPs Prior to Construction and Site Restoration.** The project applicant or its contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) specific to the project and be responsible for securing coverage under State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall identify specific	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
		actions and best management practices (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	

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

Environmental Impact	Significance Before Mitigation	Proposed Mitigation Measures	Significance After Mitigation
		• Training procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP The SWPPP shall be prepared by a Qualified SWPPP Practitioner and/or Qualified SWPPP Developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure. **HYD-2** **Incorporate Post-Construction Runoff BMPs into Project Drainage Plan**. The project Drainage Plan shall adhere to the County's Engineering Guidelines Manual, Imperial Irrigation District (IID) "Draft" Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. Infiltration basins will be integrated into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary.	
Impact 3.10-3: Alter the existing drainage pattern of	Potentially Significant	Implement Mitigation Measures HYD-1.	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 site or area resulting in siltation or on- or off-site erosion			
Impact 3.10-4: Alter the existing drainage pattern of the site or area resulting in flooding on- or off-site	Potentially Significant	Implement Mitigation Measures HYD-2.	Less than Significant
Impact 3.10-5: Alter the existing drainage pattern of the site or area such that runoff increases would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	Potentially Significant	Implement Mitigation Measures HYD-1.	Less than Significant
Impact 3.10-8: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan	Potentially Significant	Implement Mitigation Measures HYD-1 and HYD-2.	Less than Significant
Tribal Cultural Resources			
Impact 3.15-1: Impact on tribal cultural resources	Potentially Significant	Implement Mitigation Measure CUL-2. **TCR-1** **Discovery of Unidentified Tribal Cultural Resources.** If previously unidentified tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with Imperial County and any interested Tribes, shall make the necessary plans for treatment	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
		of the find(s) and for the evaluation and mitigation of impacts if the finds are determined to be a tribal cultural resource as defined in PRC Section 21074.	

Statement of Overriding Considerations

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

Project Alternatives

Alternatives Considered but Rejected

Alternative Site

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

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

Alternatives Evaluated

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 Size. 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 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 Senate Bill 32.

Alternative 2: Reduced Project Site

The purpose of this alternative is to reduce impacts on Prime Farmland within the project site. As discussed in Section 3.3, Agricultural Resources, implementation of the project would result in the temporary conversion of 973.24 acres of Prime Farmland to non-agricultural uses. A majority of the Prime Farmland occurs within the Big Rock 2 Cluster North Site and Big Rock 2 Cluster West Site. This alternative would reduce the overall size of the solar facility by avoiding the Prime Farmland occurring within the Big Rock 2 Cluster North Site and Big Rock 2 Cluster West Site. This alternative would avoid developing parcels that contain large areas of Prime Farmland. (NOTE: this alternative would not avoid several pockets of Prime Farmland, as these represent small, isolated pockets of land, which would likely not remain economically viable or practically feasible to farm as they would be surrounded by solar uses). Therefore, the project site would be reduced by approximately 788 acres from a total of 1,849 acres to 1,061 acres.

As shown in Table ES-2, this alternative would reduce impacts to agricultural resources, air quality, biological resources, cultural resources, hydrology/water quality, tribal cultural resources, and utilities/service systems.

Alternative 2 would meet most of the basic objectives of the proposed project and should remain under consideration. 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.

Environmentally Superior Alternative

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

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	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No 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:* No 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:* No Impact (Avoid)	*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:* No 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:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact

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:* No 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:* No 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:* No 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:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Land Use/Planning	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Noise and Vibration	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *No Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Public Services	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *No Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Transportation	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Tribal Cultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Utilities/Service Systems	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Less Impact

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1 Introduction

This environmental impact report (EIR) has been prepared to meet the requirements of the California Environmental Quality Act (CEQA) for purposes of evaluating the potential environmental impacts, mitigation measures, and alternatives associated with the proposed Big Rock 2 Cluster Solar and Storage 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 applicant, 90FI 8me, is seeking approval of four Conditional Use Permits (CUPs), a General Plan amendment, Zone Change, and five variance requests associated with the construction and operation of a utility-scale photovoltaic (PV) solar energy generation and battery energy storage system (BESS) facility on approximately 1,849 acres of privately-owned land in the unincorporated area of Imperial County, California. The project would generate up to a combined 500 megawatt (MW) of alternating current (AC) on a daily basis and up to 500 MW of battery storage. The proposed project involves utilizing approximately 1,569 acres of land that has not previously been entitled for solar development, as well as 280 acres of land that was previously entitled under active CUPs known as Laurel Cluster 2 North (120 acres), and Laurel Cluster 2 South (160 acres). The Laurel Cluster 2 North and Laurel Cluster 2 South will be re-entitled as part of the proposed project. The four CUP applications or individual site locations consists of the following:

- Big Rock 2 Cluster North: CUP 24-0006
- Big Rock 2 Cluster South: CUP 24-007
- Big Rock 2 Cluster East/Laurel Cluster South (herein referred to as Big Rock Cluster East): CUP 24-0008
- Big Rock 2 Cluster West: CUP 24-0009

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) BESS; and, 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the Imperial Irrigation District’s (IID) existing Liebert Switchyard. The solar energy facility, BESS and gen-tie are collectively referred to as the “proposed project” or “project.”

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. **General Plan Amendment (#24-0002).** An amendment to the County’s General Plan Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the RE

Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the remaining portions of the project site into the RE Overlay Zone. No land use amendment is requested, and the underlying "Agriculture" General Plan designation would remain.

2. **Zone Change (#24-0003).**

- **Big Rock 2 Cluster North**. As shown in Table 1-1, the Big Rock 2 Cluster North site is currently zoned A-2 (General Agricultural), A-2-R (General Agricultural Rural), A-3 (Heavy Agriculture), A-2-RE (General Agricultural – Renewable Energy Overlay), and A-3-RE (Heavy Agriculture – Renewable Energy Overlay). The project parcels associated with the previously-approved CUP for Laurel Cluster 2 North (APNs 051-300-032 and 051-300-036) are already classified into the RE Overlay Zone. As shown in Table 1-1, the applicant is requesting a Zone Change to include/classify the remaining project parcels into the RE Overlay Zone (A-2-RE, A-2-R-RE, and A-3-RE).

Table 1-1. Big Rock 2 Cluster North Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-270-020	A-2-R	A-2-R-RE
2	051-270-028	A-2	A-2-RE
3	051-270-036	A-2	A-2-RE
4	051-270-041	A-2-R	A-2-R-RE
5	051-280-054	A-2	A-2-RE
6	051-300-011	A-2	A-2-RE
7	051-300-016	A-2	A-2-RE
8	051-300-026	A-2	A-2-RE
9	051-300-035	A-3	A-3-RE
10	051-300-037	A-3	A-3-RE
11	051-300-032 (northern portion)	A-2	A-2-RE
Laurel 2 North CUP #21-0014 (Expires December 2024)			
12	051-300-032 (southern portion) (to be re-entitled)	A-2-RE	N/A
13	051-300-036 (to be re-entitled)	A-3-RE	N/A

- **Big Rock 2 Cluster South**. As shown in Table 1-2, the Big Rock 2 Cluster South site is currently zoned A-3 (Heavy Agriculture). As shown in Table 1-2, the applicant is requesting a Zone Change to include/classify the project parcels into the RE Overlay Zone (A-3-RE).

Table 1-2. Big Rock 2 Cluster South Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-330-003	A-3	A-3-RE
2	051-350-004	A-3	A-3-RE
3	051-350-006	A-3	A-3-RE
4	051-350-007	A-3	A-3-RE
5	051-350-008	A-3	A-3-RE

- **Big Rock 2 Cluster East.** As shown in Table 1-3, the Big Rock 2 Cluster East site is currently zoned A-2-RE (General Agricultural – Renewable Energy Overlay). The project parcels associated with the previously-approved CUP for Laurel Cluster 2 South (APNs 051-310-027 and 051-310-0328) are already classified into the RE Overlay Zone. Therefore, no Zone Change would be required for the Big Rock 2 Cluster East site.

Table 1-3. Big Rock 2 Cluster East Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-310-027	A-2-R-RE	N/A
2	051-310-028	A-2-R-RE	N/A

Big Rock Cluster West. As shown in Table 1-4, the Big Rock 2 Cluster West site is currently zoned A-2-R (General Agricultural Rural) and A-3 (Heavy Agriculture). As shown in Table 1-4, the applicant is requesting a Zone Change to include/classify the project parcels into the RE Overlay Zone (A-2-R-RE and A-3-RE).

Table 1-4. Big Rock 2 Cluster West Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-290-018	A-2-R	A-2-R-RE
2	051-290-019	A-3	A-3-RE
3	051-320-005	A-3	A-3-RE
4	051-320-006	A-3	A-3-RE
5	051-320-007	A-3	A-3-RE

3. **Approval of the following CUPs:**
    - **Big Rock 2 Cluster North: #24-0006**
    - **Big Rock 2 Cluster South: #24-0007**
    - **Big Rock 2 Cluster East: #24-0008**
    - **Big Rock 2 Cluster West: #24-0009**

Implementation of the project would require the approval of the four CUPs listed above by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. With approval of the zone change, the project site would

be zoned General Agricultural, General Agricultural Rural, and Heavy Agriculture with a RE Overlay Zone (A-2-RE, A-2-R-RE and A-3-RE).

Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*
- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

4. **Variance (#24-0002 through 24-0006).** The proposed project may involve construction of transmission and communication towers up to 200 feet in height. Per §90508.07 (within A-2 zone) and §90509.07 (within A-3 zone) "nonresidential structures and commercial communication towers shall not exceed one hundred twenty (120) feet in height ..." The proposed project would require a height variance for any transmission and communication structures that exceed this height limit.
5. **Certification of the EIR.** After the required public review for the Draft EIR, the County will respond to written comments, edit the document, and produce a Final EIR to be certified by

the Planning Commission and Board of Supervisors prior to making a decision on approval or denial of the project.

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

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

Other Agencies Reviews and/or Consultations

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

Federal

UNITED STATES FISH AND WILDLIFE SERVICE

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

UNITED STATES ARMY CORPS OF ENGINEERS

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

State

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (TRUSTEE AGENCY)

- The California Department of Fish and Wildlife (CDFW) is a Trustee Agency and enforces compliance with regulations related to California special-status species or their habitats as required under the California Endangered Species Act (CESA). Agencies and/or project proponents must consult with CDFW regarding, when applicable, compliance with Section 1602 of the California Department of Fish and Game (CDFG) Code.

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.

IMPERIAL IRRIGATION DISTRICT

- Review as part of the EIR process and issue an Interim Water Supply Policy (IWSP) water supply agreement (if IID determines the project is to utilize IWSP for Non-Agricultural Projects water) and other permits such as encroachment permits

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 Section 1251-1387)

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

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

1.2.8 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 50-day public review period 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.

Rocio Yee, Planner II

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 Big Rock 2 Solar and Storage Project on September 3, 2024. 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 September 3, 2024. 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:

- California Department of Conservation
- California Department of Fish and Wildlife
- Imperial Irrigation District
- Imperial County Air Pollution Control District

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

Scoping Meeting and Environmental Evaluation Committee

During the NOP public review period, the Big Rock 2 Solar and Storge Project was discussed as an informational item at the County's Environmental Evaluation Committee meeting on September 26, 2024.

Additionally, a scoping meeting (held in-person and virtually) for the general public as well public agencies was held on September 26, 2024 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 September 3, 2024. 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 comment letters 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
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils

- Greenhouse Gas (GHG) Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise and Vibration
- Public Services (Fire Protection and Police Protection)
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems (Water Supply)

Eliminated from Further Review in Notice of Preparation

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

1.4.4 Areas of Controversy and Issues to be Resolved

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

1.4.5 Document Organization

The structure of the Draft EIR is identified below. The Draft EIR is organized into 10 chapters, 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 Big Rock 2 Solar and Storage 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; air quality; biological resources; cultural resources; geology and soils; GHG emissions; hydrology/water quality; land use and planning; noise and vibration; public services, 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.

2 Project Description

Chapter 2 provides a description of the Big Rock 2 Cluster Solar and Storage 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 project applicant, 90FI 8me, is seeking approval of four Conditional Use Permits (CUPs), a General Plan amendment, Zone Change, and five variance requests associated with the construction and operation of a utility-scale photovoltaic (PV) solar energy generation and battery energy storage system (BESS) facility. The project would generate up to a combined 500 MW of alternating current (AC) on a daily basis and up to 500 MW of battery storage. The proposed project involves utilizing approximately 1,569 acres of land that has not previously been entitled for solar development, as well as 280 acres of land that was previously entitled under active conditional use permits (CUP) known as Laurel Cluster 2 North (120 acres), and Laurel Cluster 2 South (160 acres). The Laurel Cluster 2 North and Laurel Cluster 2 South will be re-entitled as part of the proposed project.

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) BESS; and, 3) gen-tie line that would connect the proposed on-site substation to the point of interconnection at the Imperial Irrigation District’s (IID) existing Liebert Switchyard. The solar energy facility, BESS and gen-tie are collectively referred to as the “proposed project” or “project.”

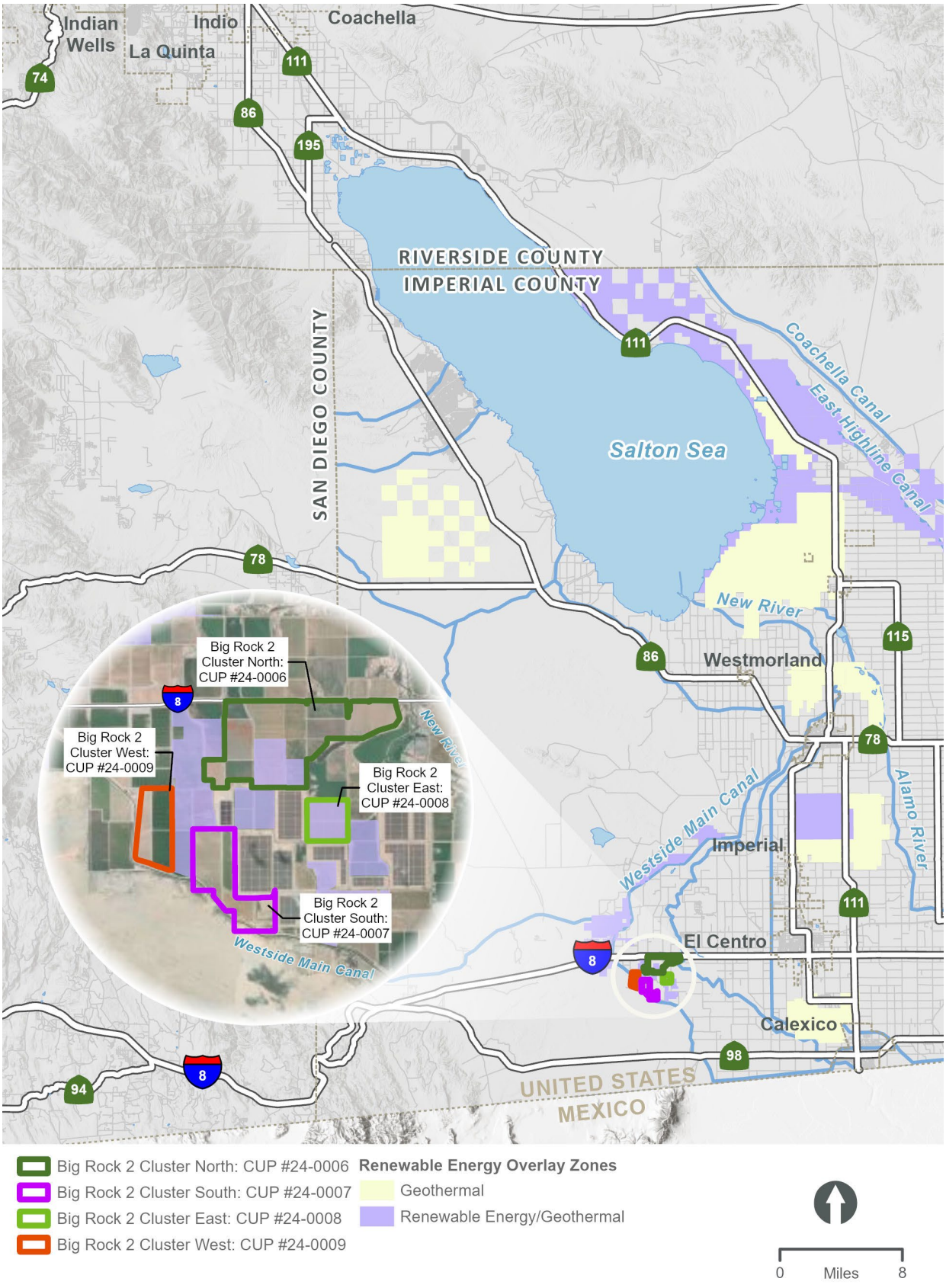
2.1 Project Location

The project site is located on approximately 1,849 acres of privately-owned land in the unincorporated area of Imperial County, California (Figure 2-1). The proposed project is located south of Interstate 8, approximately one mile southwest of the townsite of Seeley, and approximately six miles north of the United States International Border with Mexico. The project site is west of Drew Road and east and north of Mandapa Road. The entire project site comprises 1,849 acres of privately-owned land, comprising 24 assessor parcels.

The project site consists primarily of agricultural fields and unpaved roads, and all the project parcels have been extensively cleared, plowed, and maintained for agricultural production. Due to the extensive irrigated farming history within the project site and surrounding area, as well as locally high-water table, many irrigation canals and drains occur within proximity of the project. These include a segment of the New River adjacent to the northeast corner of the project, and the IID Westside Main Canal which is located along the west and southern edges of the project site.

The project site is adjacent and proximal to both Agricultural and Agricultural/Rural lands that have been rezoned for renewable energy development, specifically for PV solar and BESS projects that have been approved by Imperial County. Campo Verde Solar, owned by Southern Power, became operational in September 2013 and is located on multiple APNs that are adjacent to the project site.

Figure 2-1. Regional Location



As previously mentioned above, the project applicant is seeking approval of four separate CUPs associated with the construction and operation of a utility-scale PV solar energy generation and BESS facility, which together define the project site. The four CUP applications or individual site locations consist of the following and are shown in Figure 2-2.

- Big Rock 2 Cluster North: CUP 24-0006
- Big Rock 2 Cluster South: CUP 24-007
- Big Rock 2 Cluster East/Laurel Cluster South (herein referred to as Big Rock Cluster East): CUP 24-0008
- Big Rock 2 Cluster West: CUP 24-0009

Each of these four individual site locations are described in detail below.

2.1.1 Big Rock 2 Cluster North: CUP #24-0006

The Big Rock 2 Cluster North site is located on 13 parcels comprising approximately 1,030 acres. Table 2-2 identifies the individual APNs associated with the Big Rock 2 Cluster North site with their respective acreage and zoning. As shown in Table 2-1, of the 1,030 acres, approximately 120.3 acres are associated with the previously-approved CUP for Laurel Cluster 2 North. Approximately 80 acres of APN 051-300-032 and 40.3 acres of APN 051-300-036 associated with the previously-approved CUP for Laurel Cluster 2 North would be re-entitled as part of the proposed project.

The Big Rock 2 Cluster North site is located immediately south of I-8 and north of W Vaughn Road. The easterly limits of this site are generally defined by the New River, with the westerly limits of the site defined by Westside Road. The site is traversed by the Fern Canal and the Fig Lateral.

Table 2-1. Big Rock 2 Cluster North Assessor Parcel Numbers, Zoning, and Acreage

	APN	Zoning	Acres
1	051-270-020	A-2-R	101.8
2	051-270-028	A-2	52.3
3	051-270-036	A-2	67.4
4	051-270-041	A-2-R	279.0
5	051-280-054	A-2	149.5
6	051-300-011	A-2	79.6
7	051-300-016	A-2	10.8
8	051-300-026	A-2	13.4
9	051-300-035	A-3	40.3
10	051-300-037	A-3	28.9
11	051-300-032 (northern portion)	A-2	85.5
Sub-total			***910.0***
Laurel 2 North CUP #21-0014 (Expires December 2024)			
12	051-300-032 (southern portion) (to be re-entitled)	A-2-RE	80.0
13	051-300-036 (to be re-entitled)	A-3-RE	40.3

Sub-total	***120.3***
TOTAL ACRES	**1,030**

2.1.2 Big Rock 2 Cluster South: CUP #24-0007

The Big Rock 2 Cluster South site is located on five parcels comprising approximately 410 acres. Table 2-2 identifies the individual APNs associated with the Big Rock 2 Cluster South site with their respective acreage and zoning.

The Big Rock 2 Cluster South site is located generally south of Dixie Lateral One and north of the Westside Main Canal. The Dixie Drain Three generally marks the eastern boundary and an unnamed, unpaved farm road delineates the western boundary.

Table 2-2. Big Rock 2 Cluster South Assessor Parcel Numbers, Zoning, and Acreage

	APN	Zoning	Acres
1	051-330-003	A-3	246.5
2	051-350-004	A-3	57.4
3	051-350-006	A-3	26.3
4	051-350-007	A-3	40.0
5	051-350-008	A-3	40.0
TOTAL ACRES			**410.0**

2.1.3 Big Rock 2 Cluster East/Laurel Cluster South: CUP #24-0008

The Big Rock 2 Cluster East/Laurel Cluster South site is located on two parcels comprising approximately 160 acres. Table 2-3 identifies the individual APNs associated with the Big Rock 2 Cluster East/Laurel Cluster South site with their respective acreage and zoning. The 160-acre site is associated with the previously-approved CUP for Laurel Cluster 2 South and will be re-entitled as part of the proposed project.

The Big Rock 2 Cluster East site/Laurel Cluster South site is north of W Diehl Road, west of Jessup Road, and east of Derrick Road. An unnamed, unpaved farm road marks the northern boundary.

Table 2-3. Big Rock 2 Cluster East/Laurel Cluster South Assessor Parcel Numbers, Zoning, and Acreage

	APN	Zoning	Acres
1	051-310-027	A-2-R-RE	120.0
2	051-310-028	A-2-R-RE	39.9
TOTAL ACRES			**160.0**

2.1.4 Big Rock 2 Cluster West: CUP #24-0009

The Big Rock 2 Cluster West site is located on five parcels comprising approximately 249 acres. Table 2-4 identifies the individual APNs associated with the Big Rock 2 Cluster West site with their respective acreage and zoning.

The Big Rock 2 Cluster West site is located immediately east of Mandapa Road, south of W Vaughn Road, west of an unnamed, unpaved farm road, and north of the Westside Main Canal and Mandrapa Road.

Table 2-4. Big Rock 2 Cluster West Assessor Parcel Numbers, Zoning, and Acreage

	APN	Zoning	Acres
1	051-290-018	A-2-R	79.8
2	051-290-019	A-3	48.7
3	051-320-005	A-3	45.0
4	051-320-006	A-3	39.9
5	051-320-007	A-3	35.3
TOTAL ACRES			**249.0**

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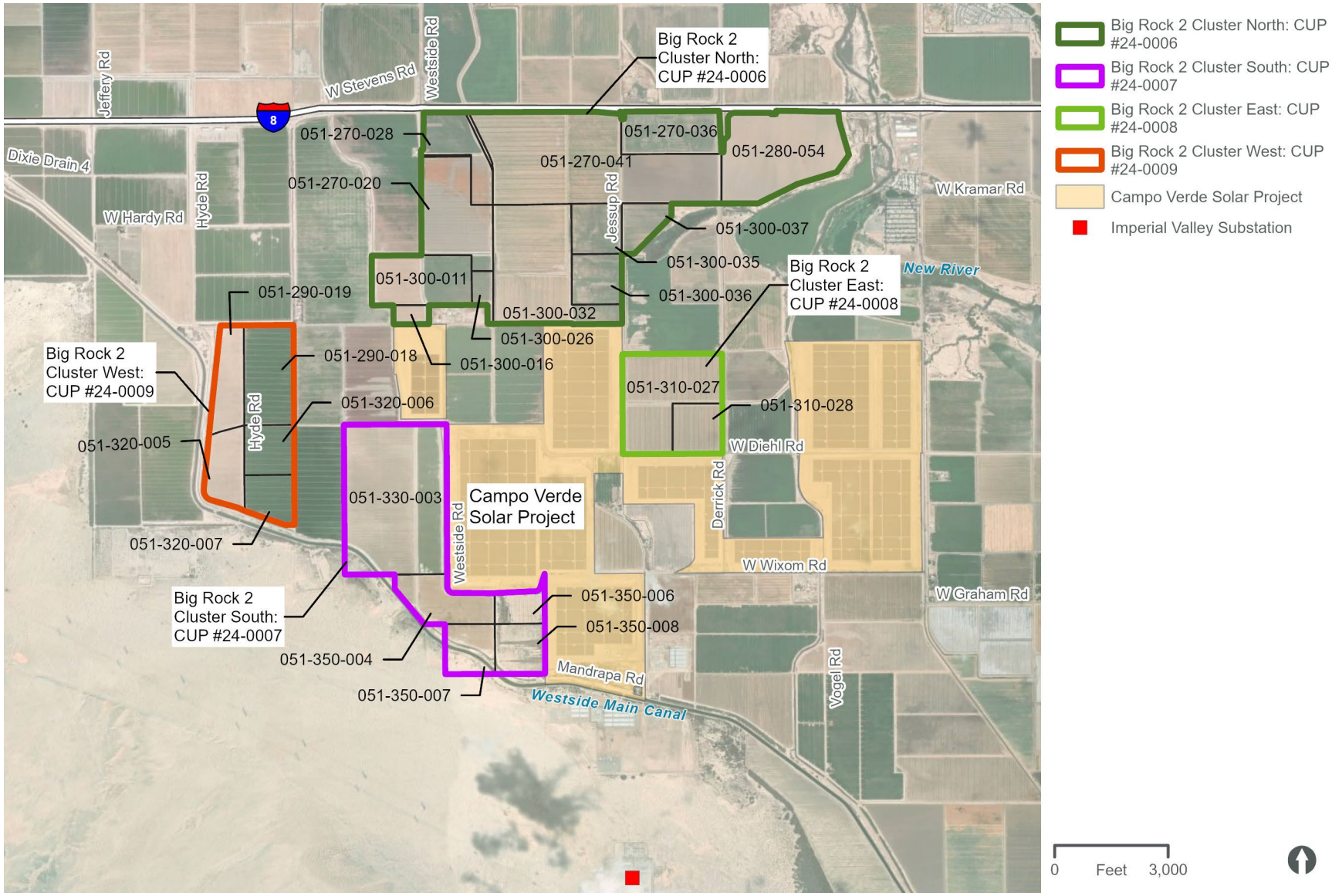
Figure 2-2. Project Site



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Renewable Energy Overlay Zone

In October 2015, the County revised the Imperial County Renewable Energy and Transmission Element, which includes a 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.

The County's General Plan and Land Use Ordinance allows that for renewable energy projects proposed on land classified in a non-RE Overlay zone, that the land on which the project is located may be included/classified in the RE Overlay Zone if the renewable energy project: 1) would be located adjacent to an existing RE Overlay Zone; 2) is not located in a sensitive area; 3) is located in proximity to renewable energy infrastructure; and, 4) and would not result in any significant environmental impacts.

As shown in Figure 2-3, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the remaining portions of the project site into the RE Overlay Zone. No land use amendment is requested, and the underlying "Agriculture" General Plan designation would remain.

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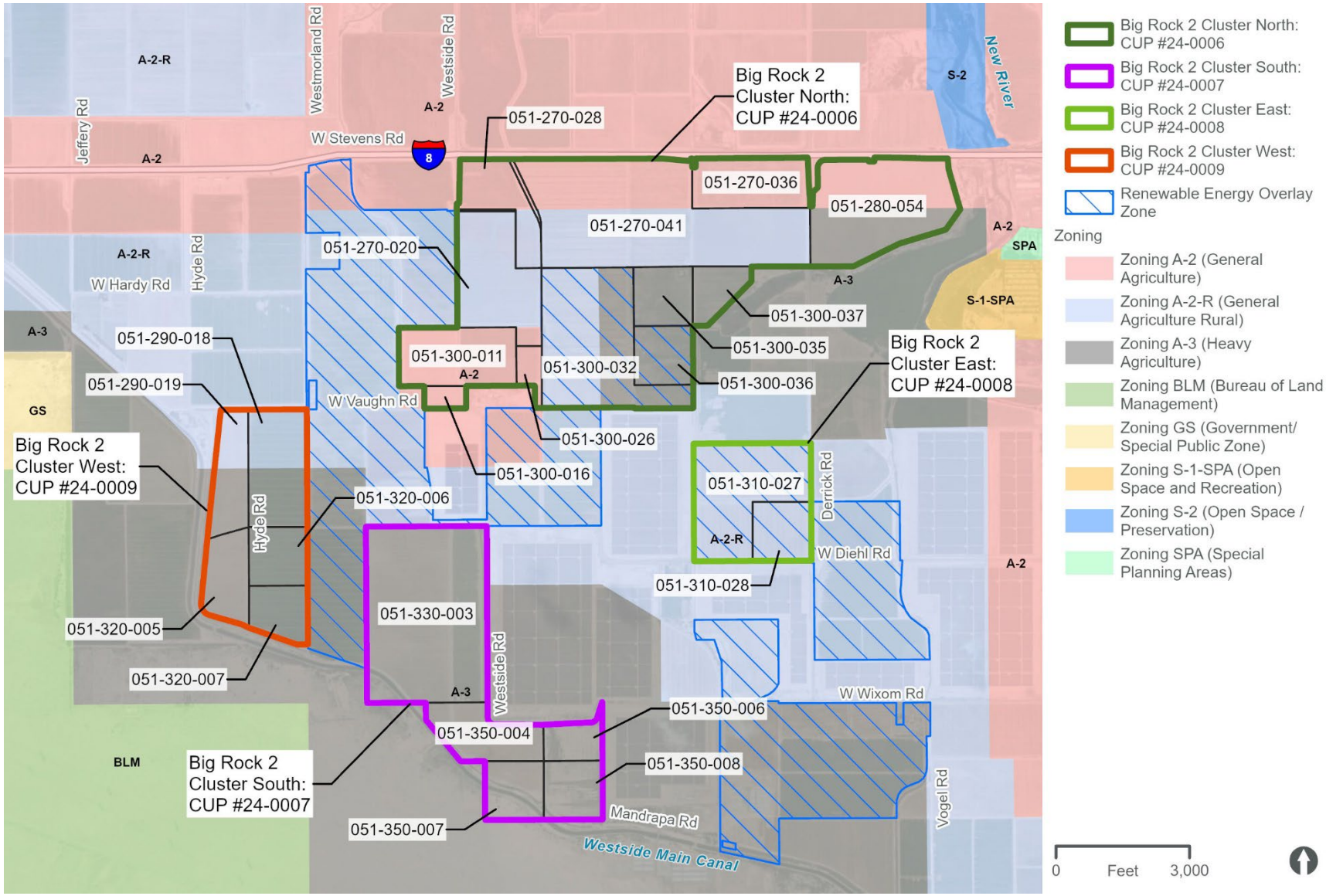
Figure 2-3. Zoning Designations



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2.2 Project Objectives

The primary project objective is to develop, design and construct a large-scale solar PV and BESS facility in Imperial County that, when operational, maximizes the production of clean, reliable, and renewable electric power in an economically feasible and commercially financeable manner. The power produced by the project is expected to be marketed to utility companies, Community Choice Aggregators (CCAs), or other large-scale energy off-takers. Additional project objectives include:

- Provide renewable energy to the electric grid to meet increasing demand for in-state generation and provide energy storage that can be dispatched to the regional grid during times of greatest energy demand.
- Integrate the proposed project operating facilities with previously proposed and entitled PV solar and BESS projects in the project vicinity to maximize economies of scale.
- Provide annual revenues consistent with the Public Benefit Program for Solar Power Plants in Imperial County (Amended May 9, 2023, by the Board of Supervisors) that directly supports Agriculture, Community Benefits Funds, and Public Services (e.g., Sheriff, Public Health, Fire Department) within Imperial County.
- Assist the County in continuing the goal in the Renewable Energy and Transmission Element of its General Plan to develop large scale solar energy development as a major energy source in the County.
- Promote economic development and bring regionally defined living-wage jobs to the region throughout the life of the proposed Project.
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established in 2006 under California Assembly Bill 32, the Global Warming Solutions Act of 2006, which requires the California Air Resources Board to reduce statewide emissions of greenhouse gases (GHGs) to at least the 1990 emissions level by 2020. This timeline was updated in 2016 under SB 32, which requires that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit by 2030.
- Support California's Renewable Portfolio Standards (RPS) Program consistent with the timeline established by SB 100 (De León, also known as the "California Renewables Portfolio Standard Program: emissions of greenhouse gases") as approved by the California Legislature and signed by Governor Brown in September 2018, which established a 50 percent RPS goal by December 31, 2026, 60 percent by December 31, 2030, and a goal that 100 percent of electric retail sales to end-use customers be provided by renewable energy and zero-carbon resources by 2045.
- Utilize historically farmed lands that could otherwise be fallowed due to current and future water shortages, thereby providing local farmers and/or agricultural landowners in Imperial County an alternative to the economic losses associated with limiting their agricultural production.

2.3 Project Characteristics

The proposed project involves the construction of a utility-scale PV solar and BESS facility on approximately 1,849 acres of privately-owned land. As shown in Table 2-5, the project would generate up to a combined 500 MW of AC on a daily basis and up to 500 MW of battery storage. Energy generated by the project would be collected using up to 66 kilovolt (kV) collector lines which could run overhead and/or underground to a dedicated project substation. A 230-kV overhead generation intertie (gen-tie) transmission line is anticipated to link the project substation to the existing Liebert Switchyard, which will then be connected via an overhead 230-kV gen-tie line to the existing Mandrapa Switchyard and the San Diego Gas and Electric (SDG&E) Imperial Valley Substation.

Each individual CUP site may include a ground mounted photovoltaic solar power generating system, supporting structures, inverter modules, pad mounted transformers, BESS, access roads and fencing, an operations and maintenance (O&M) building, and an on-site substation. Figure 2-4 depicts the proposed site plan.

It is anticipated that all BESS facilities associated with the project will be developed concurrently with PV componentry and situated in proximity to project sub-station(s); however, the CUP areas may cooperate if necessary to meet energy production and project needs, by allowing one CUP area to utilize BESS credits of another CUP area. Likewise, the project may share facilities such as O&M facilities, transmission-related facilities, project sub-station(s), and/or other appurtenances.

Table 2-5. Proposed Big Rock 2 Cluster Solar and Storage Project Megawatt Output

CUP Site	Proposed PV MW	Proposed BESS MW
Big Rock 2 Cluster North: CUP 24-0006	100	40
Big Rock 2 Cluster South: CUP 24-007	120	240
Big Rock Cluster East: CUP 24-0008	60	20
Big Rock 2 Cluster West: CUP 24-0009	80	20
Note: Total PV system is 500 MW. Table depicts Big Rock 2 PV MW only. Does not include those portions of the project that have been previously approved associated with the Laurel Cluster Project and will be re-entitled/renewed (140 MW).		

2.3.1 Photovoltaic Panels/Solar Arrays

Solar cells, also called PV cells, convert sunlight directly into electricity. PV cells combine to create solar modules, or panels, and many solar panels combined together to create one system is called a solar (or PV) array.

The project would use PV panels or modules on mounting frameworks to convert sunlight directly into electricity. The PV panels or modules would include, but not be limited to, bi-facial or concentrated photovoltaic (CPV) technology. Individual panels would be installed on either fixed-tilt or tracker mount systems (single- or dual-axis, using galvanized steel or aluminum). Figure 2-5 provides a representative example of these types of systems. If the panels are configured for fixed tilt, they would be oriented toward the south. For tracking configurations, the panels would rotate to follow the sun

over the course of the day. Although the panels could stand up to 15 feet in height, depending on the mounting system used, panels are expected to remain between six and eight feet in height.

The solar panel array would be arranged in groups called blocks, with inverter stations generally located centrally within the blocks (Figure 2-6). Blocks would produce direct electrical current (DC), which is converted to alternating current (AC) at the inverter stations.

Each PV module would be placed on a fixed-tilt or tracker mounting structure. The foundations for the mounting structures can extend up to 10 feet below ground, depending on the structure, soil conditions, and wind loads, and may be encased in concrete or use small concrete footings. A light-colored ground cover or palliative may be used to increase electricity production. Final solar panel layout and spacing would be optimized for the project area characteristics and the desired energy production profile.

Figure 2-4. Proposed Site Plan

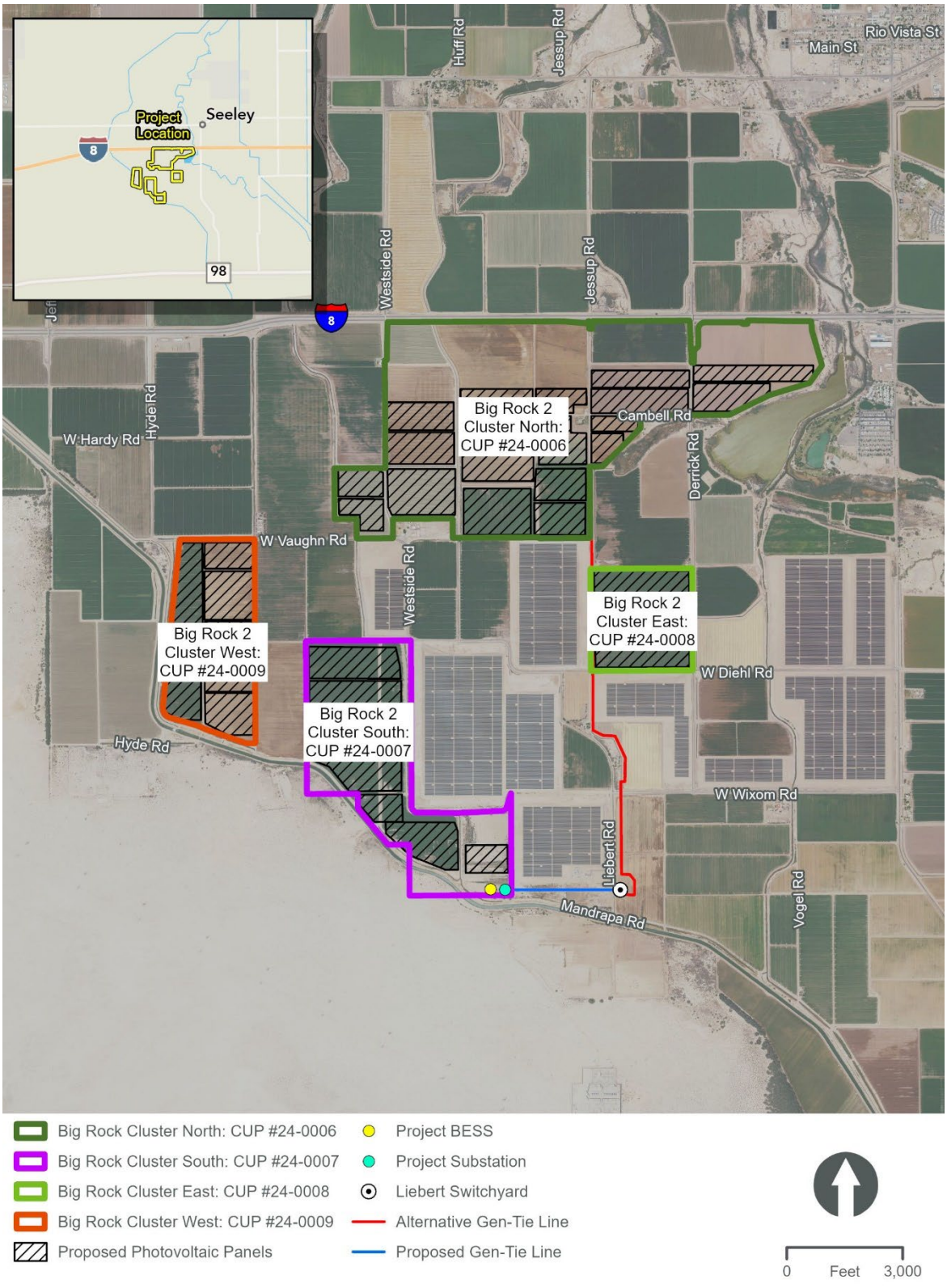

Figure 2-5. Representative Examples of Photovoltaic Panel/Mounting Configuration

Typical Fixed-Tilt Solar Panel Rows

Typical Single-Axis Tracking Solar Panels

Typical Dual-Axis Tracking Solar Panels

Typical Fixed-Tilt Mounting Structure

Typical Dual-Axis Mounting Structure

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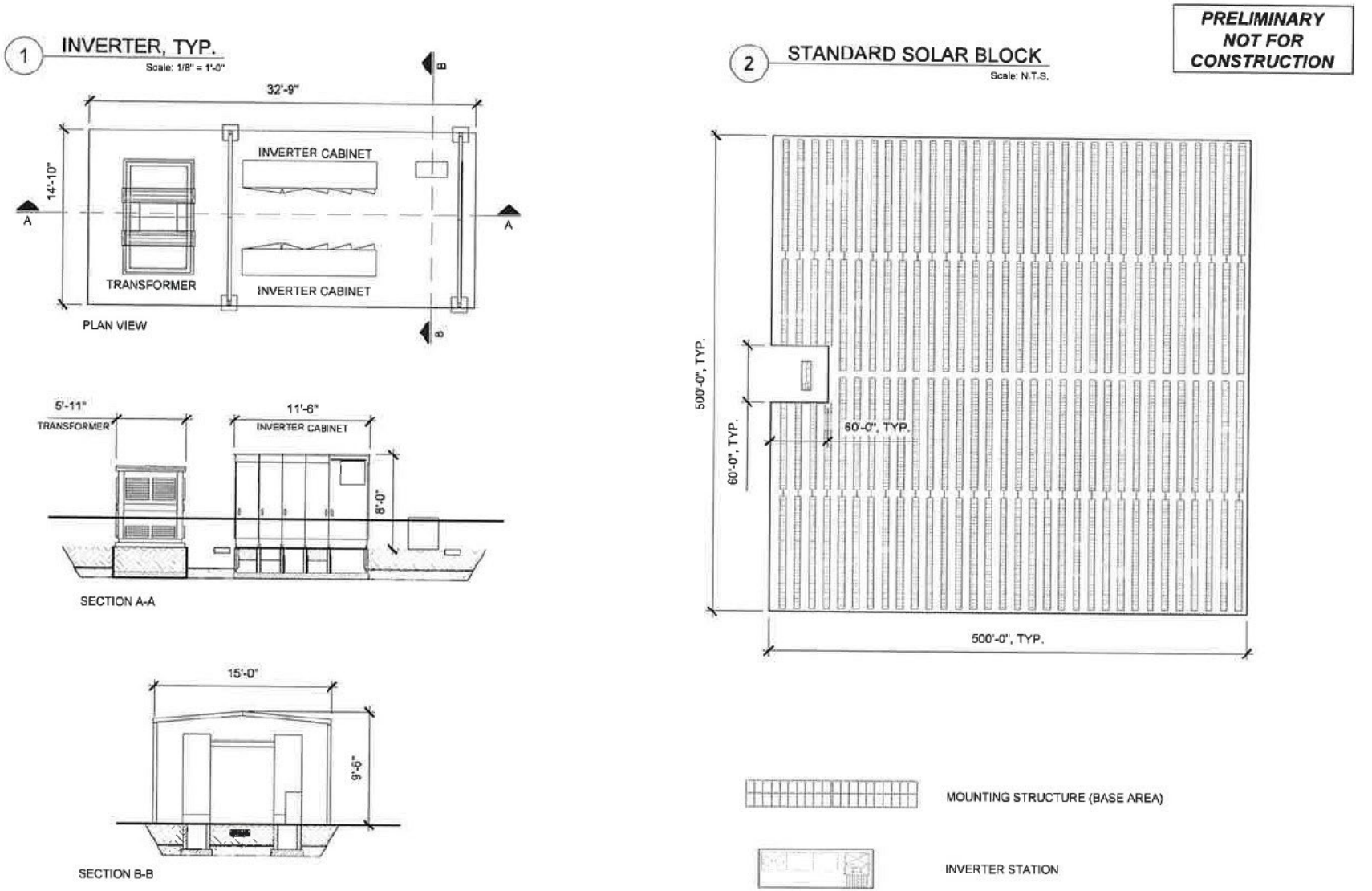
Figure 2-6. Standard Solar Block and Typical Inverter Plan and Profile



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2.3.2 Collection, Inverter and Transformer Systems

DC energy is delivered from the PV panels via cable to inverter stations, generally located near the center of each block. Inverter stations convert the DC energy to AC energy which can be dispatched to the transmission system. PV Inverter stations are typically comprised of one or more inverter modules with a rated power of up to 5-MW each, a unit transformer, and voltage switch gear. BESS units for the project would be connected to bidirectional inverter stations, high-level control system(s), transformers, and ultimately the project substation(s) bus bar via a series of overhead or underground electrical collector lines ranging from 66kV to 230kV. Utilizing these project components, the DC onsite PV panel and battery energy would be converted to AC energy and dispatched to the regional transmission grid, and this process would be reversed to charge the batteries from electrical energy imported from the regional transmission grid for onsite energy storage. PV and BESS inverter stations are typically comprised of one or more inverter modules with a rated power of up to 10 MW each, and a unit transformer, and voltage switchgear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) and control system(s) are housed in cabinets. Depending on the vendor selected for the project, the inverter stations may be located within an enclosed or canopied metal structure, typically a skid or concrete pad. Figure 2-7 provides representative examples of a typical inverter station.

Overhead and/or underground collector lines may be bundled together as they approach the substation(s), sharing common poles or trenches. Collector lines would then connect to the project substation bus bar before being stepped up to 230kV for transmission. The 66kV collector lines would be connected from the various PV parcels and the BESS system to the step-up project substation. The final location(s) of each component, height, and structure type(s) would be determined before the issuance of building permits for the project by Imperial County.

Figure 2-7. Representative Examples of Typical Inverter Stations

2.3.3 Battery Energy Storage System

The project will include one or more BESS, located at or near the project substation(s)/switchyard(s), the inverter stations, or elsewhere onsite. A conceptual BESS layout is shown in Figure 2-8. BESS' consist of modular and scalable battery packs and battery control systems that conform to California and U.S. national safety standards. The BESS modules, which could include commercially available lithium or flow batteries, and typically consist of ISO standard all-weather containers (approximately 40'L x 8'W x 8'H) housed in pad- or post-mounted, stackable metal structures. The maximum height of a dedicated structure is not expected to exceed 25 feet. Figure 2-9 provides representative examples of a typical energy storage system. The actual dimensions and number of energy storage modules and structures vary depending on the application, supplier, and configuration chosen, as well as on off taker/power purchase agreement requirements for the project. As the BESS facility is intended to remain in service for the life of the project, it may be necessary to augment the batteries at regular intervals during project operations to restore the BESS facility to full capacity due to the life cycle of the battery units. Additional staff may be temporarily brought onsite, as needed, during augmentation installation.

The BESS would be in unmanned, remotely controlled containers that would be periodically inspected by project personnel for maintenance purposes. The BESS would be designed to conform with Imperial County and national BESS fire standard NFPA 855 and/or other applicable national standards. The BESS would have all required UL9540A reports (or equivalent) and would be certified to UL9540 (or equivalent), if required. BESS' require additional components to be fully operational, and that allow the batteries to be connected to the regional transmission grid as discussed below.

2.3.4 Substation(s)

The proposed project would have its own dedicated substation equipment located within the project footprint. Dedicated equipment may incorporate several components, including high voltage and auxiliary power transformers, distribution cabinets, revenue metering systems, a microwave transmission tower, voltage switch gear, transmission poles and racking, and bus bar(s) of various voltages for interconnection(s) (Figure 2-10). The substation may also include telecommunications facilities, fiber optic communication cables, equipment, and associated structures (such as communication towers) for diverse path routing of communications. Substations typically occupy an area of up to approximately five acres and are secured separately by a chain-link fence.

Dedicated project substations typically include a small control building (approximately 500 square feet) standing approximately 10 feet tall. The building is either prefabricated concrete or steel housing with rooms for the voltage switch gear and the metering equipment, a room for the station supply transformer, and a separate control technology room in which the main computer, the intrusion detection system, and the main distribution equipment are housed. Components of this building (e.g., control technology room and intrusion detection system) may instead be located at an O&M building. A representative example of a substation is presented in Figure 2-11.

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Figure 2-8. Conceptual BESS Layout

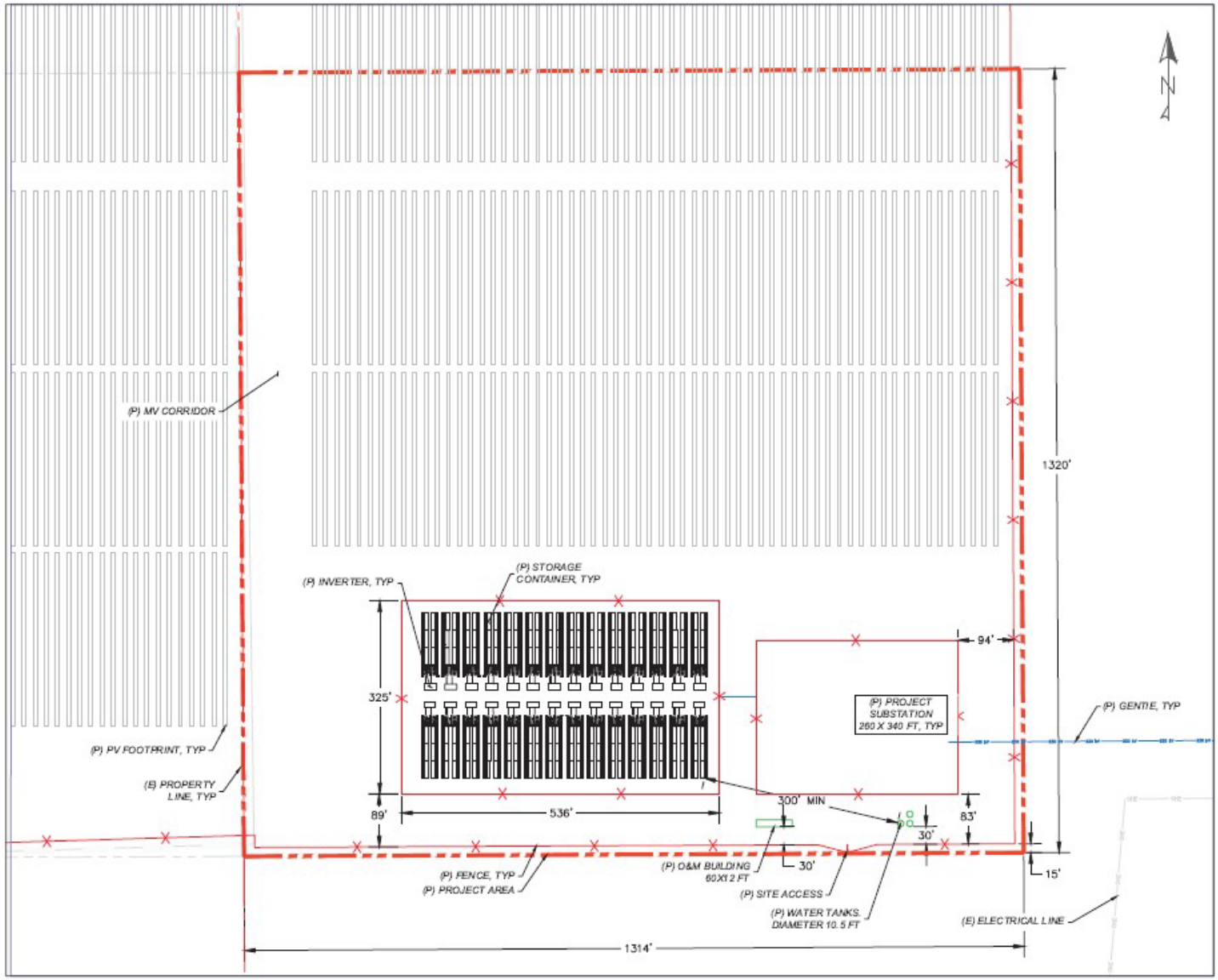

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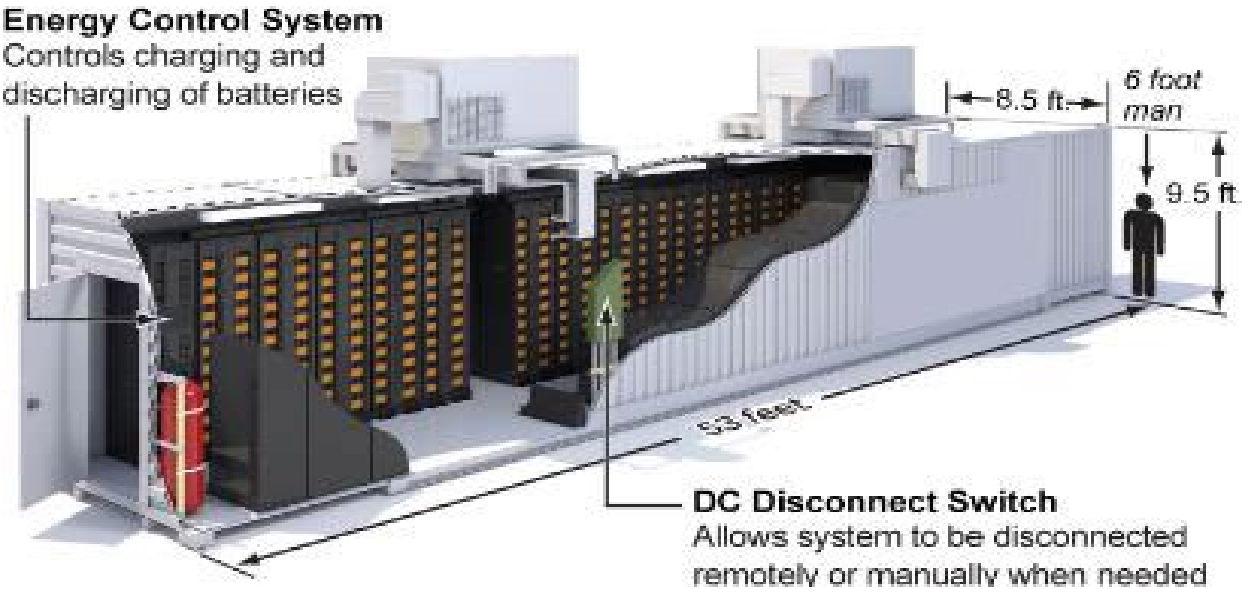
Figure 2-9. Representative Examples of Typical Energy Storage Systems

Modular BESS Installed on Concrete Pad

Modular BESS Installed on Multiple Concrete Pads

Figure 2-9. Representative Examples of Typical Energy Storage Systems (con'td)



Typical BESS Module Configuration

Typical BESS

Figure 2-10. Substation Details - Typical

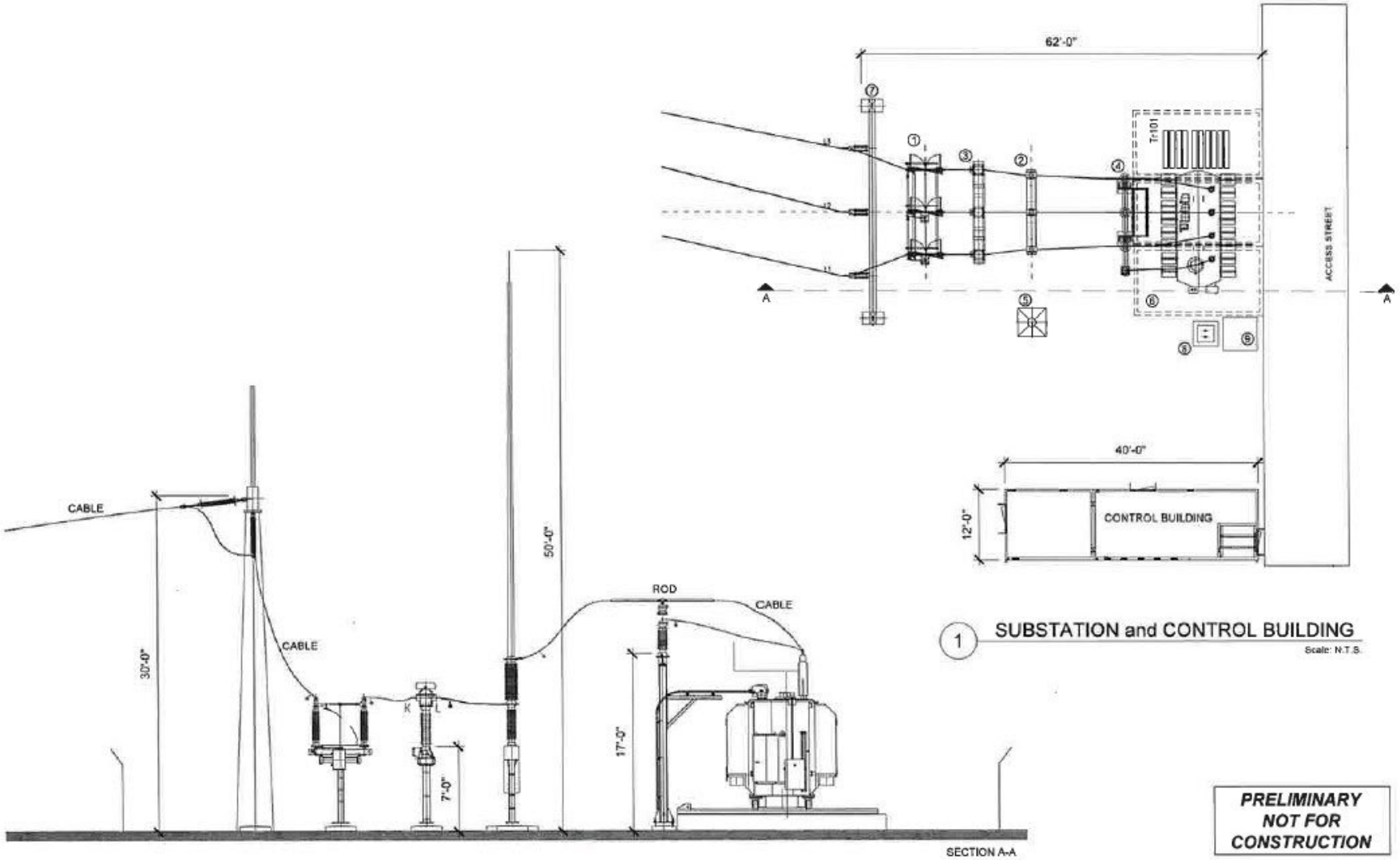


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Figure 2-11. Representative Example of Typical Substation Design

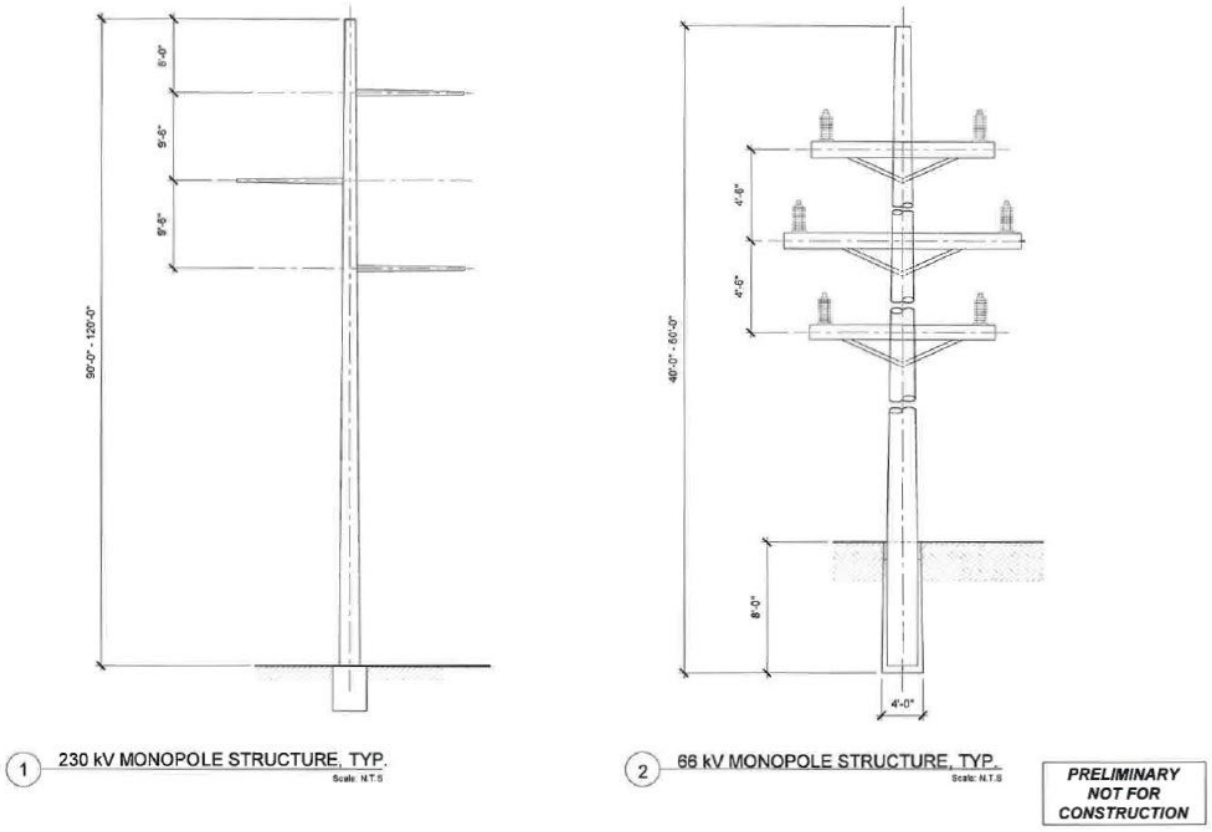
2.3.5 Transmission Line and Interconnection

The project's 230kV step-up substation would connect to the existing 230kV Liebert Switchyard/Sub-station via one of the proposed gen-tie line alternatives (Figure 2-4). The proposed gen-tie line alignment would extend approximately 0.62 miles from the southeast corner of the Big Rock 2 Cluster South site then heads east to the Liebert Switchyard. The alternative gen-tie line alignment would extend approximately 2.04 miles from the south-central portion of the Big Rock 2 Cluster North site then heads south to the Liebert Switchyard. The project will transmit electricity to the electric grid via the existing Liebert Switchyard/Sub-station; therefore, a new electric grid switchyard/sub-station will not be required, and thus obviating the need for any real estate conveyance to IID specific to the project. The existing Liebert Switchyard is connected to the existing SDG&E Imperial Valley Substation via an existing overhead 230kV gen-tie line that also passes through the existing Mandrapa Switchyard. Overhead transmission conductors may be mounted on tubular steel poles up to 200 feet in height (Figure 2-12) and would include associated insulator and hardware assemblies, the appropriate number of spans of conductor and optical ground wiring, and dead-end structures at both the project substation and the Liebert Switchyard. Portions (or all) of the gen-tie line may be undergrounded as necessary. The structure type(s), height, and final location(s) of each component would be determined before the issuance of building permits by Imperial County.

Alternative gen-tie routing(s) may utilize currently entitled lands and/or private easements; however, additional alternate routing may include gen-tie line(s) directly to the Imperial Valley substation, utilizing additional/other private and/or Bureau of Land Management (BLM) lands. The project applicant will be required to submit application(s) to BLM in the event the gen-tie alignment will need to cross BLM lands. The BLM will determine the permits required based on the scope of the application(s).

The maximum height limit for non-residential structures and commercial communication towers in the A-2 and A-3 zones is 120 feet. The proposed project may involve construction of transmission towers up to 200 feet in height, which would exceed the height limit in the A-2 and A-3 zones and a height variance would be required.

Figure 2-12. Monopole Details - Typical



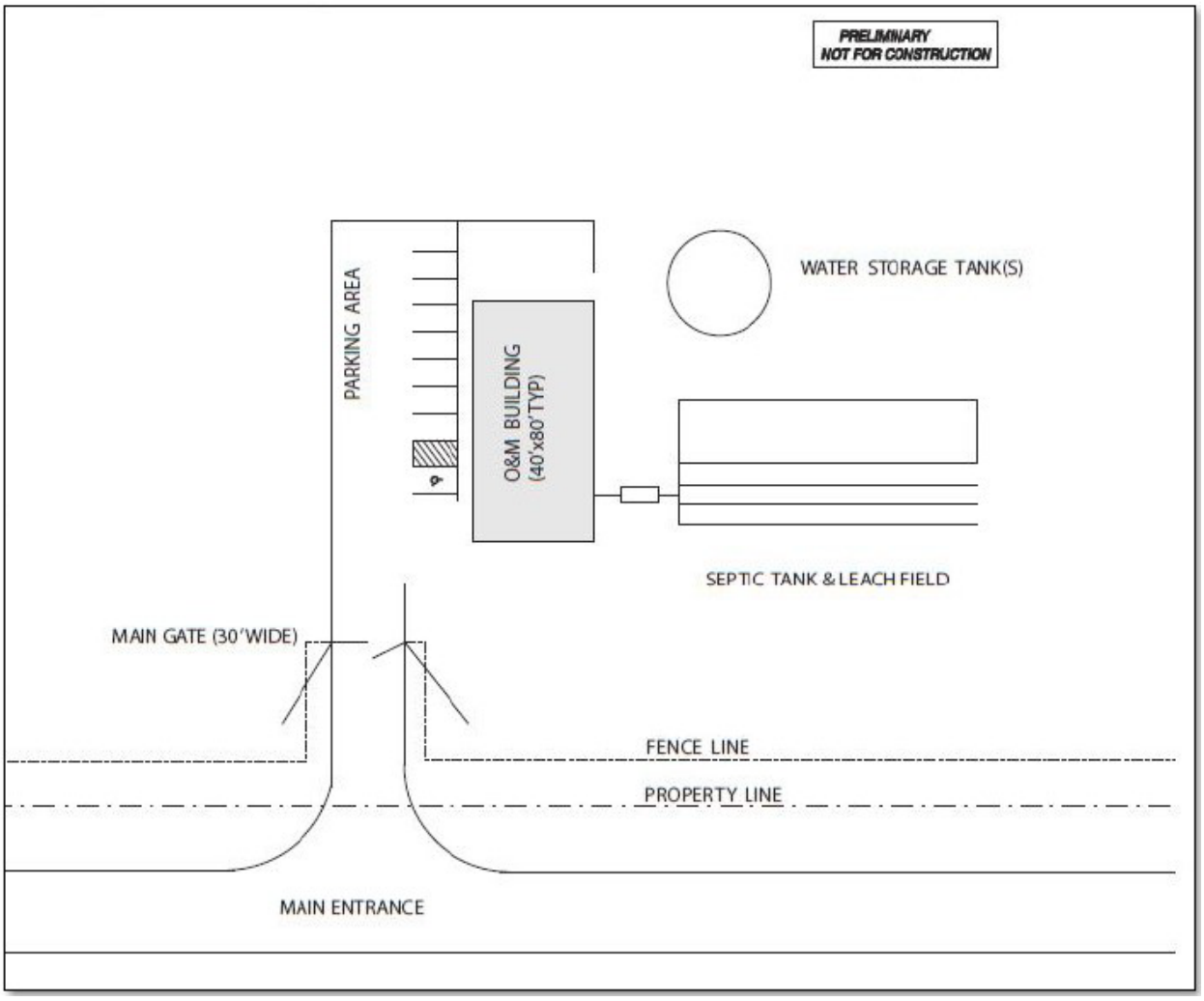
2.3.6 Operations and Maintenance (O&M) Building

Each individual CUP site may include an O&M building of approximately 40’ x 80’ in size, with associated onsite parking. Figure 2-13 depicts a typical O&M building floor plan and elevations. The O&M building would be steel framed, with metal siding and roof panels. The O&M building may include the following:

- Office
- Repair building/parts storage
- Control room
- Restroom
- Septic tank and leach field
- Water supply
- Heating, ventilation, and air conditioning (HVAC)

Roads, driveways, and parking lot entrances would be constructed in accordance with Imperial County standards. Parking spaces and walkways would be constructed in conformance with all California Accessibility Regulations. Any unused O&M areas onsite may be covered by solar panels. The structure type(s), height, and final location(s) of each component would be determined before the issuance of building permits by Imperial County.

Figure 2-13. Conceptual Operations and Maintenance Building Area Plan



2.3.7 Roadway and IID Crossings

The project may require the following crossing types of IID canals and/or drains and unimproved Imperial County roads:

- overhead electric
- underground electric
- vehicular crossings

The exact locations of the crossings are not known at this time but are not anticipated to interfere with the purpose or continued use of these facilities. For instance, where a drain flows, the project crossing or access point would still allow the drain to flow. As required by IID, the project may be required to make minor improvements to on-site drains. IID requires solar projects to improve existing drain outflow pipes. This typically involves installation of new drain outflow pipes to reduce erosion within the drains. Exact locations and dimensions of any required IID facility and/or County roadway crossings would be determined prior to issuance of building permits by Imperial County.

2.3.8 Water Usage

The proposed project is anticipated to require approximately 700 acre-feet of water to support construction over a 1.5 to 2-year period. Water for construction (primarily for dust control) would be obtained from IID canals or laterals in conformance with IID rules and regulations for municipal, commercial, industrial (MCI) temporary water use. Water would be picked up from a nearby canal or lateral and delivered to the construction location by a water truck capable of carrying approximately 4,000 gallons per load. To obtain water delivery service, the project Applicant will complete an IID-410 Certificate of Ownership and Authorization (Water Card), which provides IID with the information needed to manage the IID-apportioned water supply. Water cards are used for Agriculture, Municipal, Industrial and Service Pipe accounts.

The proposed project is anticipated to require up to 10 acre-feet per year (AFY) to support O&M over a 30-year operational period. The operational water demand would be for the O&M building, fire flow storage, and periodic panel washing. It is assumed that no water for dust control during operation will be necessary. Untreated Colorado River water will be supplied to the project via the adjacent Westside Main Canal under a water agreement with IID under IID's General Industrial Services rate schedule (Schedule No. 7). In the event that IID determines that the proposed project is to utilize Interim Water Supply Policy (IWSP) for Non-Agricultural Projects water, the Applicant will also need to enter into an IWSP Water Supply Agreement with IID. IID has adopted an IWSP for non-agricultural projects from which water supplies can be contracted to serve new non-agricultural developments within IID's water service area.

A small water treatment system may be installed onsite near or within the O&M building to provide deionized water for panel washing.

2.3.9 Water Storage

One or more above-ground water storage tanks with a total capacity of up to 100,000 gallons may be placed near the O&M building. The storage tank(s) near the O&M building would have the appropriate fire department connections to be used for fire suppression. These storage tanks could be up to 30-feet in height.

2.3.10 Site Security and Fencing

The project area would be enclosed within a chain link fence measuring six feet in height with 1-foot-tall barbed wire on top of the chain link fence. Slatted chain-link fencing would be installed along the northern perimeter of the project site (portion of the project site adjacent to I-8) and non-slatted chain-link fencing would be installed around the remainder of the project perimeter. An intrusion alarm system comprised of sensor cables integrated into the perimeter fence, intrusion detection cabinets placed approximately every 1,500 feet along the perimeter fence, and an intrusions control unit, located either in the substation control room or at the O&M building, or similar technology, may be installed. Additionally, the project may include additional security measures including, but not limited to, low voltage fencing with warning reflective signage, controlled access points, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the project.

Controlled access gates would be maintained at the main entrances to the project. Project area access would be provided to offsite emergency response teams that respond in an after-hours emergency. Enclosure gates would be manually operated with a code or key provided in an identified key box location.

2.3.11 Lighting

Outdoor lighting for the project would be the minimum required for safety and will be directed away from public rights-of-way and adjacent private property. All outdoor lighting used onsite would be of the lowest intensity necessary to provide suitable light for site security and safe ingress and egress, in compliance with any applicable regulations, measured at the property line after dark. Outdoor lighting is anticipated to be necessary for the access gates, substation(s), O&M building, control room, and inverters to allow for safe access and emergency maintenance. Site lighting may also include motion sensor lights installed within the solar fields in proximity to the inverters for security purposes.

2.3.12 Site Access

Primary access to the project site would utilize east-west roads Evan Hewes Highway, Diehl Road and north-south road Westside Road. The east-west road Wixom Road and West Vaughn Road; and the north-south road Derrick Road may provide access to some project parcels. Internal access roads would be constructed with an all-weather surface and meet County Fire Department's standards. Points of ingress/egress would be accessed via locked gates that can be opened by any emergency responders. An all-weather surface access road would surround the perimeter of the project site, as well as around solar blocks no greater than 500 by 500 feet.

2.3.13 Fire Protection/Fire Safety Systems

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.

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 Project Construction

The construction period for the project is approximately 18 to 24 months. Construction would include the following activities:

- Site preparation
- Access and internal circulation roads
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Panel installation
- Electrical/instrumentation work
- Collector line installation
- Battery unit installation
- Stormwater management facilities
- Gen-tie line poles and conductor stringing

Roadways would only be temporarily affected, and only during the project's construction period.

Construction traffic could access the project site from the north or south via Derrick Road, Jessup Road, Westside Road, and Hyde Road, and from the east via Diehl Road and Wixom Road (or other nearby local roads). An additional access alternative includes entrance to the project site from Interstate 8 (I-8) to Dunaway Road, to West Evan Hewes Highway, to Westside Road. Large trucks would likely utilize I-8 and S29 (Drew Road) Evan Hewes Hwy, Westside Road, and Diehl Road for materials deliveries. It is anticipated that traffic would entirely avoid the town of Seely.

Noise generated during construction activities would comply with the Imperial County noise ordinances (Title 9 Land Use Code, Division 7). Heavy construction is expected to occur between 6:00 am and 5:00 pm, Monday through Saturday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low level noise activities may potentially occur between the hours of 10:00

pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, concrete pours, staging material for the following day's construction activities, quality assurance/control, and commissioning.

Materials and supplies would be delivered to the project area by truck. Truck deliveries would normally and primarily occur during daylight hours. However, there would be occasional offloading and/or transporting to the project on weekends and during evening hours.

Earthmoving activities are expected to be limited to the construction of the access roads, O&M building, substation, water storage tank(s), solar panel foundation supports, BESS(s), transmission poles and conductor stringing, and any storm water protection or storage (detention) facilities. The project is not anticipated to pave, remove, or significantly alter existing agricultural soil(s). Rather, solar panels would be installed atop the flat lots, leaving the farming soil relatively undisturbed and available for crop cultivation at the end of the project's life. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas to control dust and increase the reflectivity of the ground surface.

Site preparation would be planned and designed to minimize the amount of earth movement required for the project, to the extent feasible. The hydrology design would be given priority to protect the project's facility components, as well as adjacent IID canals/drains and County roads, from erosion during large storm events. The existing on-site drainage patterns would be maintained to the greatest extent feasible. Compaction of the soil to support the building and traffic loads as well as the PV module and BESS supports may be required and is dependent on final geotechnical investigations and engineering designs. These final engineering designs would be reviewed by IID and the County prior to Imperial County issuing building permits.

2.4.1 Laydown Areas

At full build-out, most of the project footprint would be disturbed by construction of the project. Therefore, temporary construction laydown and materials staging areas, construction trailer locations, and construction parking areas will all be provided within the project disturbance footprint. Due to the large scale of the project, the laydown areas may be relocated periodically within the solar field acreage as the project is built out.

2.4.2 Workforce

It is estimated that up to 500 workers per day (during peak construction periods) would be required to construct the project.

2.5 Project Operation

The PV solar and BESS facility would operate seven days a week, 24 hours a day. Maintenance activities may occur seven days a week, 24 hours a day to ensure PV panel output when solar energy is available, while the BESS could dispatch energy at any time during the day or night.

Once constructed, maintenance of the PV solar and BESS facility would generally be limited to the following:

- Cleaning of PV panels
- Monitoring PV panel and BESS electricity generation

- Providing site security
- Maintenance of stormwater facilities
- Maintenance of PV solar and BESS facilities including replacing or repairing inverters, wiring, or electrical components, and maintaining, repairing, or replacing substation components.

2.5.1 Workforce

It is expected that the project would require an operational staff of 4 to 10 full-time employees. It is possible that the proposed project could share O&M, substation, and/or transmission facilities with other adjacent PV solar and BESS projects that have been approved and entitled by Imperial County, or with any future proposed renewable energy projects nearby. In such a scenario, the projects would share personnel, thereby potentially reducing the project's on-site staff.

2.6 Utility Grid Upgrades

Certain utility grid upgrades will be performed by the utility to support the interconnection of the project. Upgrades will be limited to areas already within the footprint of the utility. The utility upgrades assigned to the project include, a Remote Terminal Unit (RTU) at Imperial Valley Substation, installation of one or more new 230-kV circuit breakers, two or more 230 kV disconnect switches, one A-frame deadend structure, line deadend hardware, three tiedowns, three surge arrestors, one Potential Transformer (PT) and associated foundations, structures, and relaying at Imperial Valley Substation. Precurser network upgrades that are expected to be in service include 24 230kV circuit breaker upgrades at Imperial Valley Substation identified as the "Short Circuit Mitigation for Imperial Valley 230kV Circuit Breakers" transmission planning project (TPP) Project.

2.7 Decommissioning and Reclamation

PV solar and BESS equipment typically has a lifespan of over 30 years. The proposed project expects to sell the renewable energy produced by the project under the terms of a long-term Power Purchase Agreement (PPA) with a utility or other power off taker. Upon completion of the PPA term, the project operator may, at its discretion, continue to generate and sell power from the project or decommission and remove the system and its components. Upon decommissioning, the PV solar and BESS facilities could be converted to other uses in accordance with applicable land use regulations in effect at that time.

It is anticipated that during project decommissioning, project structures that would not be needed for subsequent use would be removed from the project site. Above-ground equipment that may be removed would include module posts and support structures, on-site transmission poles that are not shared with third parties and the overhead collection system within the project site, inverters, substation(s), transformers, electrical wiring, equipment on the BESS and inverter pads, and related equipment and concrete pads.

Equipment would be de-energized prior to removal, salvaged (where possible), and shipped off-site to be recycled or disposed of at an appropriately licensed disposal facility. Once the PV solar modules are removed, the racks would be disassembled, and the structures supporting the racks would be removed. Site infrastructure would be removed, including fences, and concrete pads that may support the batteries, inverters, transformers, and related equipment, would also be removed. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried

by standard construction equipment. The fencing and gates would be removed, and all materials would be recycled to the extent practical. Project roads would be restored to their pre-construction function unless they may be used for subsequent land use. The area would be thoroughly cleaned, and all debris removed. Materials would be recycled to the extent feasible, with the remainder disposed of in landfills in compliance with all applicable laws.

The applicant would prepare a project Reclamation Plan that would be implemented at the end of the project's useful life, and would be consistent with Imperial County's decommissioning/reclamation requirements, including, but not limited to:

- Description of the proposed decommissioning measures for the facility and for all appurtenances constructed as part of the facility.
- Description of the activities necessary to restore the project area to its previous condition. Such activities include removing and recycling PV solar and battery equipment, storage equipment, medium voltage collector line, substation, and gen-tie lines. The soils would then be de-compacted and restored to agricultural purposes.
- Presentation of the costs associated with the proposed decommissioning/reclamation measures.
- Discussion of conformance with applicable regulations and with local and regional plans.

In the phased buildout, the phases would be decommissioned/reclaimed independently of one another.

2.8 Required Project Approvals

2.8.1 Imperial County

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

1. **General Plan Amendment (#24-0002).** An amendment to the County's General Plan Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. As shown in Figure 2-3, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the remaining portions of the project site into the RE Overlay Zone. No land use amendment is requested, and the underlying "Agriculture" General Plan designation would remain.
2. **Zone Change (#24-0003).**
    - **Big Rock 2 Cluster North**. As shown in Table 2-6 and Figure 2-3, the Big Rock 2 Cluster North site is currently zoned A-2 (General Agricultural), A-2-R (General Agricultural Rural), A-3 (Heavy Agriculture), A-2-RE (General Agricultural – Renewable Energy Overlay), and A-3-RE (Heavy Agriculture – Renewable Energy Overlay). The project parcels associated with the previously-approved CUP for Laurel Cluster 2 North (APNs 051-300-032 and 051-300-036) are already classified into the

RE Overlay Zone. As shown in Table 2-6, the applicant is requesting a Zone Change to include/classify the remaining project parcels into the RE Overlay Zone (A-2-RE, A-2-R-RE, and A-3-RE).

Table 2-6. Big Rock 2 Cluster North Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-270-020	A-2-R	A-2-R-RE
2	051-270-028	A-2	A-2-RE
3	051-270-036	A-2	A-2-RE
4	051-270-041	A-2-R	A-2-R-RE
5	051-280-054	A-2	A-2-RE
6	051-300-011	A-2	A-2-RE
7	051-300-016	A-2	A-2-RE
8	051-300-026	A-2	A-2-RE
9	051-300-035	A-3	A-3-RE
10	051-300-037	A-3	A-3-RE
11	051-300-032 (northern portion)	A-2	A-2-RE
Laurel 2 North CUP #21-0014 (Expires December 2024)			
12	051-300-032 (southern portion) (to be re-entitled)	A-2-RE	N/A
13	051-300-036 (to be re-entitled)	A-3-RE	N/A

- **Big Rock 2 Cluster South**. As shown in Table 2-7 and Figure 2-3, the Big Rock 2 Cluster South site is currently zoned A-3 (Heavy Agriculture). As shown in Table 2-7, the applicant is requesting a Zone Change to include/classify the project parcels into the RE Overlay Zone (A-3-RE).

Table 2-7. Big Rock Cluster South Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-330-003	A-3	A-3-RE
2	051-350-004	A-3	A-3-RE
3	051-350-006	A-3	A-3-RE
4	051-350-007	A-3	A-3-RE
5	051-350-008	A-3	A-3-RE

- **Big Rock 2 Cluster East.** As shown in Table 2-8 and Figure 2-3, the Big Rock 2 Cluster East site is currently zoned A-2-RE (General Agricultural – Renewable Energy Overlay). The project parcels associated with the previously-approved CUP for Laurel Cluster 2 South (APNs 051-310-027 and 051-310-0328) are already classified into the RE Overlay Zone. Therefore, no Zone Change would be required for the Big Rock 2 Cluster East site.

Table 2-8. Big Rock 2 Cluster East/Laurel Cluster South Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-310-027	A-2-R-RE	N/A
2	051-310-028	A-2-R-RE	N/A

Big Rock 2 Cluster West. As shown in Table 2-9 and Figure 2-3, the Big Rock 2 Cluster West site is currently zoned A-2-R (General Agricultural Rural) and A-3 (Heavy Agriculture). As shown in Table 2-9, the applicant is requesting a Zone Change to include/classify the project parcels into the RE Overlay Zone (A-2-R-RE and A-3-RE).

Table 2-9. Big Rock 2 Cluster West Existing and Proposed Zoning

	APN	Existing Zoning	Proposed Zoning
1	051-290-018	A-2-R	A-2-R-RE
2	051-290-019	A-3	A-3-RE
3	051-320-005	A-3	A-3-RE
4	051-320-006	A-3	A-3-RE
5	051-320-007	A-3	A-3-RE

3. **Approval of the following CUPs:**
    - **Big Rock 2 Cluster North: #24-0006**
    - **Big Rock 2 Cluster South: #24-0007**
    - **Big Rock 2 Cluster East: #24-0008**
    - **Big Rock 2 Cluster West: #24-0009**

    Implementation of the project would require the approval of the four CUPs listed above by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. With approval of the zone change, the project site would be zoned General Agricultural, General Agricultural Rural, and Heavy Agriculture with a RE Overlay Zone (A-2-RE, A-2-R-RE and A-3-RE).

    Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

    - *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
    - *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*

- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*
- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

4. **Variance (#24-0002 through 24-0006).** The proposed project may involve construction of transmission and communication towers up to 200 feet in height. Per §90508.07 (within A-2 zone) and §90509.07 (within A-3 zone) "nonresidential structures and commercial communication towers shall not exceed one hundred twenty (120) feet in height ..." The proposed project would require a height variance for any transmission and communication structures that exceed this height limit.
5. **Certification of the EIR.** After the required public review for the Draft EIR, the County will respond to written comments, edit the document, and produce a Final EIR to be certified by the Planning Commission and Board of Supervisors prior to making a decision on approval or denial of the project.

The project may involve additional ministerial and discretionary approvals as listed below. Ministerial and discretionary approvals may include, but are not limited to the following:

- Grading Permit(s) - Imperial County Planning & Development Services (ICPDS)
- Building Permit(s) - ICPDS
- Dust Control Plan – Imperial County Air Pollution Control District (ICAPCD)
- Rule 310 Exemption (as applicable) - ICAPCD
- Construction Traffic Control Plan – Imperial County Department of Public Works (ICDPW)
- County Road Encroachment Permits, Transportation Permits - ICDPW

- Vacation of Public Easements (as applicable) - ICDPW
- Site Plan and Architectural Review – ICPDS
- Occupancy Permits - ICPDS
- Fire Safety Plan – Imperial County Fire Department and Office of Emergency Management
- Project Access and Fire Water Requirements – Imperial County Fire Department and Office of Emergency Management
- On-site Water Treatment Permit – Imperial County Division of Environmental Health, ICDPW
- Private Sewage Disposal Permit - Imperial County Division of Environmental Health
- Project Decommissioning Plan - ICPDS, ICDPW
- Pest Management Plan **-** Agricultural Commissioner's Office

2.8.2 Imperial Irrigation District

Various approvals may be required from IID in conjunction with implementation of the proposed project. Wherever an IID facility (drain, irrigation canal, electric line, etc.) intersects the project, an encroachment would occur as the proposed project would cross IID facilities with access points and electrical crossings. The proposed project may also drain into IID drain facilities. Due to the preliminary nature of the project and the rapidly changing technology, the exact locations of proposed access and drainage encroachments, and electrical crossings, are not known at this time. The project encroachments/crossings would not interfere with the purpose of IID's facilities. The following IID approvals, although not discretionary approvals, include, but are not limited to:

- Encroachment Permits/Agreements
- Electrical Crossings
- Water Supply Agreements/Water Card
- Station Service/"Backfeed" Agreement
- Distribution Power/Electric Service Agreement

2.8.3 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:

- U.S. Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 Nation Wide Permit (NWP) (if required)
- California Department of Fish and Wildlife (CDFW) Section 1600 Streambed Alteration Agreement (SAA) (if required)
- California Endangered Species Act (CESA), Incidental Take Permit (ITP) for Western Burrowing Owl (recently listed by California Department of Fish and Wildlife as a "Candidate" species).

- Regional Water Quality Control Board Water Quality (RWQCB) Clean Water Act (CWA) 401 Water Quality Certification (WQC) Permit (if required), Waste Discharge Requirements (WDR) Permit, and National Pollution Discharge Elimination System (NPDES) Construction General Permit Coverage (for project construction activities)
- California Department of Transportation (Caltrans) Right-of-Way Encroachment Permits and/or Oversized Loads Permits (as required)

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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 3.16 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. Existing environmental conditions are based on the time at which the NOP was published on September 3, 2024. In evaluating the significance of these changes, this EIR applies thresholds of significance that have been developed using: (1) criteria discussed in the CEQA Guidelines; (2) criteria based on factual or scientific information; and (3) criteria

based on regulatory standards of local, state, and/or federal agencies. Mechanisms that could cause impacts are discussed for each issue area.

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

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

3.2 Aesthetics

This section provides a description of the existing visual and aesthetic resources within the 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 Resources Report* prepared by Dudek. This report is included in Appendix B of this EIR.

3.2.1 Existing Conditions

Project Site and Surrounding Area

The project site consists primarily of agricultural fields and unpaved roads, and all the project parcels have been extensively cleared, plowed, and maintained for agricultural production. Due to the extensive irrigated farming history within the project site and surrounding area, as well as locally high-water table, many irrigation canals and drains occur within proximity of the project. These include a segment of the New River adjacent to the northeast corner of the project, and the IID Westside Main Canal which is located along the west and southern edges of the project site.

The project site is designated Agricultural in the Imperial County General Plan. The project parcels are zoned Agricultural lands and/or Rural lands. Current land use of the project parcels includes cropland and irrigated grain and hayfields. The project parcels occur adjacent and proximal to both Agricultural and Agricultural/Rural lands that have been rezoned for renewable energy, specifically for PV solar and BESS projects that have been approved and entitled by Imperial County. Campo Verde Solar, owned by Southern Power, became operational in September 2013 and is located on multiple APNs that are adjacent to the project site.

Nearby land uses include residential, commercial, transportation, military, electric utility, and renewable energy production. Nearby residential land uses include the town of Seely, and commercial land uses include the Rio Bend Golf Course (and associated Specific Plan Area) to the east of the project site. The I-8 and Union Pacific Railroad transportation corridors are located to the north of the project site, and further north the Department of Defense (DOD) Naval Air Facility El Centro. To the south of the project, utility land uses include the SDG&E 230/500 kV Imperial Valley Substation, as well as additional agricultural lands that have been designated for geothermal, PV solar and BESS renewable energy projects (Appendix B of this EIR).

Visual Character and Quality

Generally, the project site and the immediately surrounding area comprise a relatively flat agricultural landscape that supports low, green grasses and other agricultural crops, irrigation canals, electrical transmission infrastructure, and solar development. The project's valley landscape is generally indistinct from other locations in the agricultural belt of Imperial Valley and is submissive to prominent mountain terrain that provides a scenic backdrop of visual interest (Appendix B of this EIR).

Existing character and viewing conditions present in the project site and in the surrounding area are further described through the use of representative vantage points offering views to the project site (also referred to as Key Observation Points [KOPs]). As an initial step in this process, aerial imagery

was reviewed to identify locations from which the project would potentially be visible from publicly accessible vantage points. Following this review, preliminary representative viewpoints for site photography were established. A photographic field survey occurred in September 2023 during which representative viewpoints were visited and existing conditions and views towards the project site were photo-documented. A subset of five photographed viewpoints were selected as KOPs. Assessments of existing visual conditions were made based on professional judgment that took into consideration sensitive receptors and sensitive viewing areas in the project area (Appendix B of this EIR).

Figure 3.2-1 illustrates the photo documented KOPs and the direction to which the photographs were taken. The photographs depicting the existing condition at the project site are presented below, and the visual simulations at each KOP depicting the proposed condition are presented in Section 3.2.3. Descriptions of each KOP are as follows:

KOP 1 – Westbound Interstate 8. Located on the shoulder of the eastbound travel lanes of the I-8 approximately 200 feet from the northern boundary of the project site (Figure 3.2-2). The view from KOP 1 is oriented to the southwest and looks across the paved interstate travel lanes, active agricultural lands marked by low and green, grass-like vegetation (likely alfalfa), the low, raised berm of irrigation canals and drainage ditches, clumped trees that have been erected as windbreaks, and more distant desert lands of western Imperial County. The dark and hazy silhouettes of distant hills and mountains are visible and the long mountain range forms the westerly horizon. The visual character of the scene is influenced by the grass-like vegetation of foreground lands and the lack of prominent vertical development. Electrical transmission infrastructure (i.e., lattice transmission towers) are present in the landscape but due to distance and lattice construction/materials, the structures are not visually dominant.

KOP 2 – Eastbound Interstate 8. Situated approximately 0.6 miles to the east of KOP 1, KOP 2 approximates the view to the project site available from the eastbound travel lanes of I-8 (Figure 3.2-3). Located on the interstate shoulder, KOP 2 looks to the southeast across the project site and a landscape dominated by flat terrain and agricultural uses. The northern project boundary is situated approximately 125 feet away (i.e., beyond the existing post and wire fencing in the foreground). The visible reach of the project site is characterized by a wide, dirt roadway that abuts an expansive field of low, green, grass-like vegetation. The elevated profile of Derrick Road is visible to the west as is a collection of mature trees that are located along Derrick Road to the south of the interstate. A series of thin poles supporting electrical distribution lines run north-south along Derrick Road and then scatter in the landscape to the southeast of KOP 2. Lastly, a collection of rectangular hay bale stacks covered with white tarps/fabric material is located to the southeast (the white of the tarps slightly stand out in a landscape dominated by brown and green tones).

KOP 3 – Southbound Derrick Road. KOP 3 is located atop the elevated bridge profile of Derrick Road as it spans I-8 (Figure 3.2-4). The view is oriented to the south-southwest and due to an elevated vantage point, the landscape is somewhat expansive and visibility extends to prominent albeit somewhat hazy landforms to the south (mounded and pyramidal El Centinela) and southwest (Jacumba Mountains). In the foreground and beyond the deck and railing of the Derrick Road bridge, the landscape is marked by north-south alignment of wood poles supporting a local electrical distribution line. A concrete lined canal generally parallels the distribution line (and Derrick Road) and fronts active agricultural lands covered with low, green, grass-like vegetation. Rectangular hale bay stacks covered with white tarps occur off-center in the KOP 3 scene and isolated or small clustered tree groupings are scattered throughout the landscape. Visible electrical infrastructure

rises from the valley floor to the southwest and congregates at the existing Imperial Valley Substation that is located nearly 3.7 miles to the south-southwest of KOP 3 (in the KOP 3 view, the substation is marked by a collection of dark and thin, overlapping vertical lines near the northwesterly base of El Centinela). Despite the presence of multiple electrical transmission lines and a large substation, El Centinela and the distant mountain range to the southwest-west are the dominant features in the landscape.

KOP 4 – Westbound Vaughn Road. Located on westbound Vaughn Road adjacent to the project boundary and the Westside Drain, KOP 4 looks southwest towards the southwestern corner of the project site that is currently occupied by low, green, grass-like vegetation (likely alfalfa hay). In Figure 3.2-5, KOP 4 is an unmarked, paved, east-west road (approximately 20 feet wide) that in the KOP 4 landscape, abuts the Westside Drain, rural residential lands, and agricultural lands to the north, and additional irrigation drains, and agricultural fields to the south. Beyond the project site and agricultural lands, a visible, north-south line of mature trees (a planted windbreak) occurs to the west-southwest and several tall and vertical steel lattice towers supporting transmission lines extend from the desert floor and above the tree line. Lastly and as at other KOPs, the background of the KOP 4 landscape is marked by dark, slightly hazy, and rugged hill and mountain terrain.

KOP 5 – Southbound Liebert Road. Situated adjacent to the concrete lined Fern Canal and on the dirt shoulder of Liebert Road (a paved road), the KOP 5 view is oriented to the southeast and looks across active agricultural lands and undeveloped yet vegetated lands occurring to the north and south of the nearby All-American Canal (Figure 3.2-6). The vegetation to the south of the All-American Canal presents as taller and more untamed than the agricultural grasses in the foreground of the KOP 5 view. A small, modest residential structure (assumed to be vacant) is visible to the southwest near the small cluster of palm trees and an assortment of numerous thin, dark, and vertical structures/lines occurs to the south and marks the Imperial Valley Substation (and lines terminating/originating at the substation). A transmission line is aligned along Liebert Road and while located nearly 6 miles away, the dark and mounded form of El Centinela dominates the southern horizon. Additional mountainous terrain is visible to the southeast but due to distance and apparent scale, these features are not visually dominant.

Lastly and while not visible in the KOP 5 view, an existing operational solar facility (Campo Verde Solar Facility) that includes a project substation is located approximately 200 feet to the west of KOP 5 and Liebert Road.

KOP 6 – Eastbound Diehl Road. Located at the intersection of Diehl Road and Jessup Road near the Wixom Drain, KOP 6 is located within 150 feet of the nearest project boundary that is located north of Diehl Road (Figure 3.2-7). As experienced from KOP 6, the local landscape is comprised of flat terrain with visible bermed land in the foreground that parallel Diehl Road and Jessup Road (and obscured irrigation drains). At the time of the field visit to obtain photographs of the view from KOP 6 the project site was partially inundated with water. The remainder of the site appears to have been recently tilled or otherwise disturbed. Beyond the project site, several indeterminant, light-colored, boxy structures appear on the low horizon as do pockets of tall, dark green vegetation/trees. Lastly. thin and narrow poles supporting electrical transmission infrastructure dot the low horizon and are visible along the Diehl Road corridor in the distance.

Figure 3.2-1. Key Observation Points

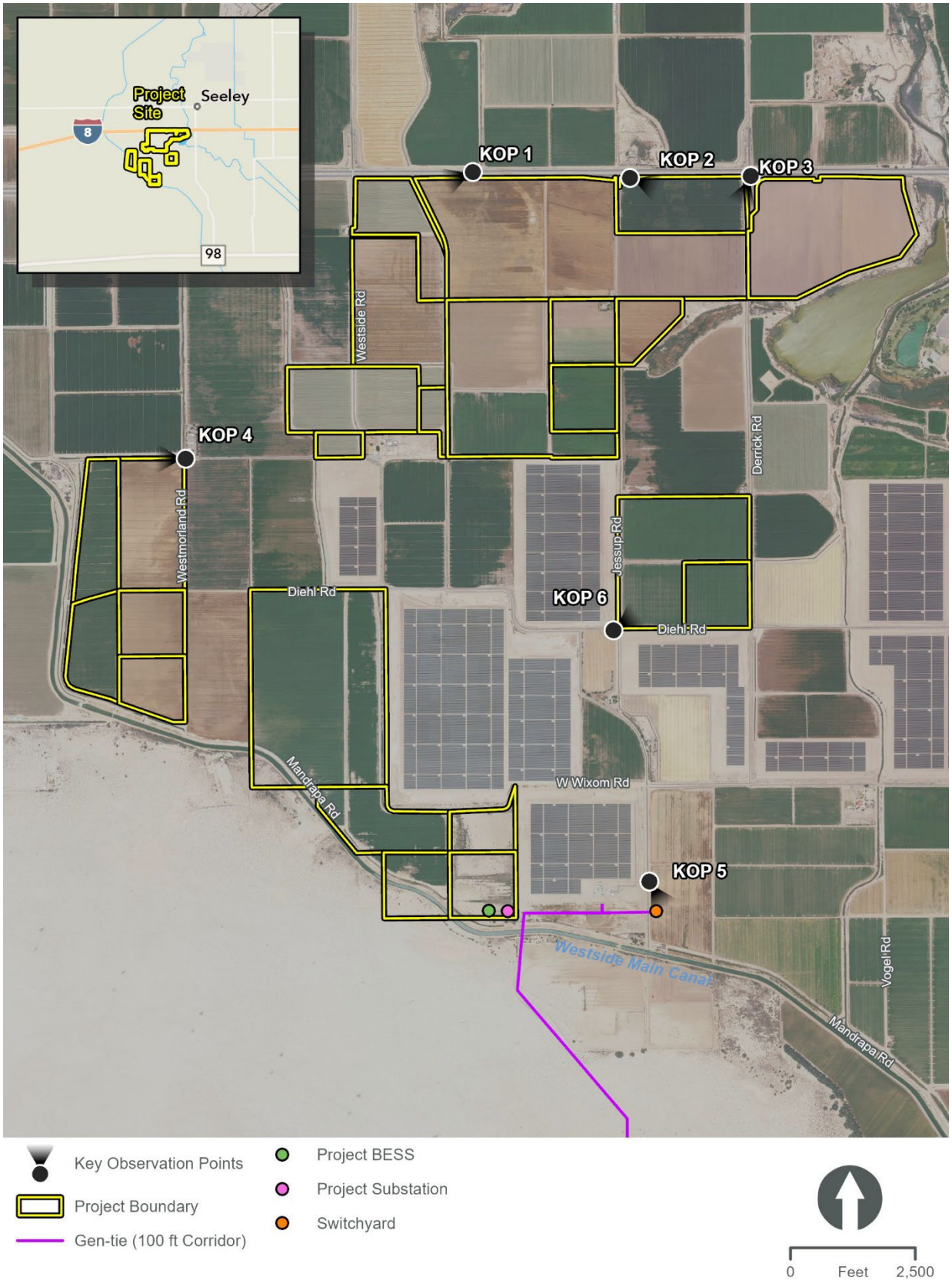

Figure 3.2-2. Existing Key Observation Point 1

Existing View from westbound Interstate 8 towards the Project site (approximately 200 feet away)

Figure 3.2-3. Existing Key Observation Point 2

Existing View from eastbound Interstate 8 towards the Project site (approximately 125 feet away)

Figure 3.2-4. Existing Key Observation Point 3

Existing View from southbound Derrick Road over Interstate 8

Figure 3.2-5. Existing Key Observation Point 4

Existing view from westbound Vaughn Road adjacent to Project site

Figure 3.2-6. Existing Key Observation Point 5

Existing view from southbound Liebert Road (approximately 0.25 mile north of All-American Canal)

Figure 3.2-7. Existing Key Observation Point 6

Existing view from eastbound Diehl Road at Jessup Road intersection (approximately 150 feet from nearest project boundary)

Scenic Vista

Scenic vistas are generally broad and expansive views that may or may not be sited at elevated areas. They may or may not be located at a designated scenic overlook or other area that offers a static, scenic view of a landscape. Lands within the project site are located in an agricultural area of the County and do not encompass lands containing a scenic vista designated as such by the State or the County General Plan. Scenic vistas are not specifically discussed in the Final Program EIR for the Imperial County General Plan; however, natural and developed areas including deserts, sand hills, mountains, the Salton Sea, agricultural lands, and urban areas are identified as County visual resources (Appendix B of this EIR). Due to the general lack of dominant vertical development in the immediate project area (and presence of agricultural lands), broad and long views to regional mountains including the Jacumba Mountains located west of the project site and pyramidal El Centinela (also known as “Weeishpa” by local tribes; located south of the project site) are generally available from I-8 and local roads near the project site (Appendix B of this EIR).

Scenic Highways

There are no designated State scenic highways in Imperial County (County of Imperial 2016). Lands within the project site are not located within a state scenic highway corridor, nor are there any state scenic highways located near the project site. The nearest eligible state scenic highway, State Route (SR)-111 between Bombay Beach and SR-195 near Mecca, is over 40 miles away. The nearest officially designated state scenic highway, SR-78 through Anza Borrego Desert State Park, is over 35 miles away (Appendix B of this EIR).

Due to distance and intervening topography and development, views to the project site are not available from a designated scenic highway.

Light and Glare

While glare is considered a continuous source of brightness (relative to diffused light), 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 consists of active agricultural lands and thus, does not include existing sources of light or glare. Most existing light and glare in the project area is associated with motor vehicles traveling on surrounding roadways, air traffic, and farm vehicles/equipment. Local roadways generate glare both during the night hours when cars travel with lights on, and during daytime hours because of the sun’s reflection from cars and pavement surfaces. Overall, existing light and glare sources are muted and do not contribute significantly to the existing night or day environment (Appendix B of this EIR).

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.

California Scenic Highways Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highway Code, Section 260 et seq. The Scenic Highways Program is comprised of officially designated scenic highways (i.e., highways for which corridor protection programs have been adopted and the highways are listed in the Streets and Highway Code) and eligible scenic highways (i.e., highways designated as scenic by the local planning department).

Local

Imperial County General Plan

The Imperial County General Plan contains policies for the protection and conservation of scenic resources and open spaces within the County. These policies also provide guidance for the design of new development. The Conservation and Open Space Element of the General Plan provides specific goals and objectives for maintaining and protecting the aesthetic character of the region. Table 3.2-1 provides an analysis of the proposed project’s consistency with the Conservation and Open Space Element Goal 7. Additionally, the Circulation and Scenic Highways Element of the General Plan provides policies for protecting and enhancing scenic resources within highway corridors in Imperial County, consistent with the Caltrans State Scenic Highway Program.

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

General Plan Policies	Consistency with General Plan	Analysis
Goal 7: The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity.	Consistent	The project would result in changes to the visual character of the project area, which is currently characterized as an agricultural landscape. As described in Impact 3.2-3, the existing visual character would not be substantially altered by the project. Proposed PV module frames are expected to be approximately 6 to 8 feet in height and as such, the introduction of solar panels would not result in substantial obstruction of views to distant mountain ranges such as those available from I-8 and Derrick Road (i.e., KOPs 1 and 3). Furthermore, project components would have an overall minor effect on existing visual character and quality as experienced from the interstate and from local roads, the visual change associated with development of a solar facility would be similar to the approved but not yet constructed Laurel Cluster Solar Farms Project (Laurel Solar 3 and 4 sites) and existing operational Campo Verde Solar Facility that have altered the existing project area landscape. For these reasons, the introduction of a solar facility to the project site would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.
Objective 7.1: Encourage the preservation and enhancement of the natural beauty of the desert and mountain landscape.	Consistent	The Project site is located within an agricultural portion of the County and generally avoids both desert and mountain landscapes.

Source: County of Imperial 2016

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.

3.2.3 Impacts and Mitigation Measures

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

Thresholds of Significance

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

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

Methodology

This visual impact analysis is based on field observations conducted in September 2023, as well as a review of maps and aerial photographs for the project area. A representative subset of photographed viewpoints was selected as KOPs, which collectively serve as the basis for this assessment. Assessments of existing visual conditions were made based on professional judgment that took into consideration sensitive receptors and sensitive viewing areas in the project area. The locations of the six KOPs in relation to the project site are presented in Figure 3.2-1 above.

The site photos were used to generate a rendering of the existing conditions and a proposed visualization of the implemented project. The visual simulations, as provided below, provide clear before-and-after images of the location, scale, and visual appearance of the features affected by and associated with the project. Design data — consisting of engineering drawings, elevations, site and topographical contour plans, concept diagrams, and reference pictures — were used as a platform from which digital models were created. In cases where detailed design data were unavailable, more general descriptions about alternative facilities and their locations were used to prepare the digital models.

Impact Analysis

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

There are no County-designated scenic vistas near the project site. The project site is located adjacent to I-8 and local roads and thus, construction and operational activities associated with the project would be visible from and experienced by motorists and the limited residents in the immediate area. As previously discussed, broad and long views to regional mountains including the Jacumba Mountains (located west of the project site) and pyramidal El Centinela (located south of the project site) are generally available from I-8 and local roads near the project site. Since the County generally identifies mountains as “County visual resources,” views to area mountains are considered scenic vistas for purposes of this analysis (Appendix B of this EIR).

During construction, typical equipment including, but not limited to, tractors, graders, compactors, scrapers, loaders, forklifts, and cranes would be present and operate on site. Combined with a temporary influx of construction personnel and equipment/vehicles, and the visual impacts of

vegetation removal, construction within the project site would alter views of the existing agricultural fields to an active construction site. However, during construction, impacts to existing views would be short-term, temporary, and be experienced by a limited number of permanent residents in the immediate surrounding area. A larger volume of viewers on nearby I-8 would experience construction activities as they approach and pass the project (the northern boundary of the project site parallels the eastbound I-8 travel lanes for approximately 2.1 miles); however, views to construction activities would be fleeting (and limited to the landscape to the south of the interstate). In addition, the visual impacts of construction activities on the project site as experienced from I-8 would be diminished by the incorporation of development setbacks from the interstate. Specifically, project development would be set back between approximately 1,100 feet to up to 2,000 feet from the eastbound lanes of I-8 and thus, project elements including solar arrays, perimeter fencing, and the visual effects of vegetation removal would not be visually prominent and would not detract from existing available views. Further, as westbound motorists and passengers travel alongside the project site, views to distant mountains to the southwest and west would be maintained over the 18-24 month construction schedule and would not be substantially blocked by equipment/vehicles or the installation of project components.

During operations, mobile views to the prominent visual resources in the project area landscape (i.e., rugged hills and distant mountain ranges) would remain available to motorists along I-8 and most local roads and would not be blocked or otherwise encumbered by project components. In addition, views to regional mountains from I-8 would not be blocked by the installation of 7-foot-high perimeter fencing or other project components. As previously discussed, project development would be set back between approximately 1,100 feet to up to 2,000 feet from I-8 and thus, solar arrays, perimeter fencing, and all other permanent features would appear small in the landscape and would not block or interrupt existing available views. While perimeter fencing would be visible from the interstate (see Figure 3.2-8 and Figure 3.2-9), the degree of visual change on the project site as experienced from the interstate would be minimal and overall effects to existing views would be minor. As shown in Figure 3.2-8 and Figure 3.2-9, the existing, interrupted view to distant mountains would be maintained and no blockage or significant interruption of existing views from the interstate to regional mountains would occur. As such, impacts would be 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?

There are no designated or eligible state scenic highways in the project vicinity or in Imperial County. The nearest eligible state scenic highway, SR-111 between Bombay Beach and SR-195 near Mecca, is over 40 miles from the project site. The nearest officially designated state scenic highway, SR-78 through Anza Borrego Desert State Park, is over 35 miles from the project site. Due to distance, and intervening development and topography, construction and operation of the project would not be visible from a state scenic highway and thus, construction and operation would not result in substantial damage to scenic resources within a state scenic highway. Therefore, no impacts to scenic resources within any state scenic highways 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 existing visual character in views of the project (Figure 3.2-2 through Figure 3.2-7) would not be substantially altered based primarily on the proximity of viewpoints to the project site. The proposed project would convert existing active agricultural lands to a PV solar facility. Components to be installed on the project site include rows of PV solar panels up to between 6 feet and 8 feet in height, up to 500 MW ac of BESS that would typically consist of ISO standard all-weather containers (approximately 40'L x 8'W x 8'H), 66-kV collector lines, and a dedicated approximately 5-acre project substation. Temporary and permanent access roads would also be constructed. Slatted chain-link fencing would be installed along the northern perimeter of the project site (portion of the project site adjacent to I-8) and non-slatted chain-link fencing would be installed around the remainder of the project perimeter. Lastly, and to reduce the potential for glare exposure along I-8, project development would be set back between approximately 1,100 feet to up to 2,000 feet from the eastbound lanes of I-8.

Construction. During construction of the project, visual impacts would be temporarily and intermittently experienced by most receptors/viewed over the phased 18-24 month construction period. Short-term visual impacts associated with project construction would occur as construction equipment, materials delivery and movement, and additional traffic is drawn to the project site and utilizes roadways in the surrounding area. Additional changes occurring on the site including removal of existing vegetation, preparation of the site to accommodate components/facilities, and installation of project components/facilities previously identified above. These short-term impacts would be experienced by local motorists and by the limited number of residences in the immediate area. As experienced from I-8, construction activities would be visible but would not be visually prominent due to provided development setbacks from the interstate. As further described in the light and glare analysis below in Impact 3.2-4, there would also be potential for light and glare impacts during the construction period.

As individual construction phases are completed, the overall amount of equipment on-site would be reduced and/or moved to other areas of the project site to initiate other phases and activities. As such, the visual characteristics of construction would be spread out across a large area and difficult to fully experience from any single vantage point in the surrounding area. Due to the temporary and intermittent nature of construction activities, impacts to existing visual character and public views available in the surrounding area would be of a short-term duration, varied, and spread over distinct locations across a large geographical area (i.e., the nearly 1,500-acre Project footprint), thereby reducing the overall severity of visual impacts as experienced by most viewer groups in the area. While construction of the project would result in a noticeable change to the existing character of the site and existing site qualities/features would be removed to accommodate construction equipment and vehicles (and the installation/construction of project components), construction impacts to existing visual character would be less than significant.

The assessment of visual character and view quality considered existing aesthetic conditions and anticipated visual change associated with project development as experienced from six selected KOPs that include west- and eastbound I-8, Derrick Road, Vaughn Road, and Liebert Road. Figure 3.2-8 through Figure 3.2-13 show the simulated views of the proposed project for all six KOPs.

As experienced from KOPs 1 and 2 (west- and eastbound I-8), the introduction of solar panels and slatted, chain-link fencing, and the transformation of the grass covered site to one surfaced with exposed local soils, would produce minimal visual change from existing conditions (see Figure 3.2-8 and Figure 3.2-9). As previously discussed, project development would be set back from the interstate and intervening vegetation and terrain on the project site (i.e., vegetation and terrain between the interstate and project footprint) would be retained/would not be altered. As such, the foreground landscape as experienced from the interstate would retain its existing character and open qualities and existing views to regional mountains would remain largely unchanged.

Similar to anticipated visual change at KOPs 1 and 2, the overall visual change at KOP 3 would be relatively minor as the low, grass-like covered fields in the foreground would be retained and unaltered (Figure 3.2-10). As shown in the KOP 3 visual simulation, the tan slatted chain-link fence and solar arrays would be visible in the distance but would be contained to a relatively small portion of the seen landscape. The installation of rows of dark solar panels would be evident from the elevated vantage point available; however, the existing landscape character would remain and would continue to exude existing agricultural qualities.

The introduction of solar panels and removal of existing vegetation from the project site would produce noticeable visual change as experienced from KOP 4 and KOP 6 (Figure 3.2-11 and Figure 3.2-13). The transformation of the project site from active agricultural lands to an operational solar facility (and more specifically, the introduction of chain-link fencing in the immediate foreground), would produce strong visual change when viewed absent context; however, the anticipated severity of change would be like that associated with development of the approved but not yet constructed Laurel Cluster Solar Farms Project (Laurel Solar 3 and 4 sites) (located to the immediate south and east of KOP 4) and the operational Campo Verde Solar Facility (located to immediate west of KOP 5 and west and south of KOP 6). Laurel Cluster Solar Farms Project (Laurel Solar 4 site) and Campo Verde Solar Facility Project components are not visible in the specific views selected for KOPs 4 and 6 but will and have noticeably altered the existing landscapes near these KOPs. Given the proximity of approved and existing energy development that includes similar components as those anticipated to be installed on the project site, overall severity of visual change would be lessened as the project would bear a resemblance to existing features (i.e., solar development) in the immediate landscape.

Lastly, the anticipated visual change associated with the development of the project substation and gen-tie line as experienced from Liebert Street (KOP 5) is illustrated in Figure 3.2-12. As shown in Figure 3.2-12, the introduction of multiple vertical structures (e.g., bays and racks) within the footprint of the project substation would create noticeable visual change and would alter the existing quality of the southeasterly view to distant mountain terrain. Additionally, while the existing grass-like covered footprint of the project substation would be replaced by a fenced electrical substation with a greyish gravel covered surface, overall visual change would be dampened by existing solar and electrical transmission/substation development in the immediate area. In addition to the transmission lines in the foreground and structures of the Imperial Valley Substation that are visible in the KOP 5 view, the existing Campo Verde Solar Facility (located across a 1,400-acre site) and project substation are located approximately 200 feet to the west of KOP 5 and Liebert Road. While not visible in the specific view selected for KOP 5, an electrical substation and multiple rows of PV modules associated with the Campo Verde Solar Facility have permanently altered the local

landscape. As such, the introduction of the project substation to the KOP 5 landscape would result in overall minor visual change when considered in the context of the existing visual landscape that includes prominent electrical transmission and substation infrastructure and large, utility-scale solar development.

Conclusion

Project operations would convert existing agricultural fields across approximately 1,849 acres to a solar facility with BESS. The primary visual change that would be experienced by viewers in the surrounding area is the introduction of numerous rows of orderly solar panels, and installation of slatted/non-slatted chain-link fencing along the site perimeter. As illustrated in the project visual simulations, proposed PV module frames are expected to be approximately 6 to 8 feet in height and as such, the introduction of solar panels would not result in substantial obstruction of views to distant mountain ranges such as those available from I-8 and Derrick Road (i.e., KOPs 1 and 3). Furthermore, project components would have an overall minor effect on existing visual character and quality as experienced from the interstate and from local roads, the visual change associated with development of a solar facility would be similar to the approved but not yet constructed Laurel Cluster Solar Farms Project (Laurel Solar 3 and 4 sites) and existing operational Campo Verde Solar Facility that have altered the existing project area landscape. For these reasons, the introduction of a solar facility to the project site would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, impacts are considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Figure 3.2-8. Key Observation Point 1 – Proposed Condition

Visual Simulation of Project (visible segments of project fence line setback between approximately 1,700 to 2,000 feet from Interstate 8)

Figure 3.2-9. Key Observation Point 2 – Proposed Condition

Visual Simulation of Project (visible segments of project fence line setback approximately 1,100 feet from Interstate 8)

Figure 3.2-10. Key Observation Point 3 – Proposed Condition

Figure 3.2-11. Key Observation Point 4 – Proposed Condition

Figure 3.2-12.Key Observation Point 5 – Proposed Condition

Figure 3.2-13. Key Observation Point 6 – Proposed Condition

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?

Light. Construction activities would generally occur between the hours of 6:00 a.m. and 5:00 p.m. and therefore, construction would not generally require the use of mobile light fixtures/sources that could potentially illuminate the evening or night sky. However, additional hours beyond 5:00 p.m. may be necessary to make up schedule deficiencies and nighttime activities including but not limited to refueling equipment, concrete pours, staging material for the following day's construction activities may potentially occur between the hours of 10:00 p.m. and 7:00 a.m.

While limited construction activities could require the use of mobile light fixtures/sources for general illumination of work areas, their frequency would be irregular and duration would be limited/short. In addition, public views to the project site are mostly limited to I-8 (views are also available from local roads in the immediate project area). Due to the anticipated infrequent use and short duration of nighttime lighting during construction, the limited presence of sensitive receptors in the immediate surrounding area, and because lighting sources would generally be hooded and directed downward onto the active area of construction, project construction would not create a new source of substantial light and glare that would adversely affect nighttime views in the area. Accordingly, impacts associated with project use of lighting during construction would be less than significant.

Lighting installed for use during project operations would be minimal. For example, site lighting may include motion sensor lights for security purposes and these sources may be installed at site entrance gates or at the on-site O&M building (if an on-site building is constructed). Despite the inclusion of lighting on-site and use during operations, the total number of lighting sources to be installed would be limited and occurrences of use/illumination would be infrequent due to motion sensor activation. Furthermore, lighting installed on the project site would be of the lowest intensity foot candle level available while still providing for safe working conditions/adequate deterrence and compliant with applicable local regulations (e.g., County Ordinance, Division 17: Renewable Energy Resources, Section 91702). Lastly, installed site lighting would be directed away from public right-of-way to avoid unsafe driving conditions during periods of lighting activation. For these reasons, the low number of fixtures and anticipated infrequent use of lighting on the project site during operations would not create a new source of substantial light and glare that would adversely affect nighttime views in the area. Impacts would be considered less than significant.

Glare. The presence of heavy equipment and vehicles on the project site during construction may momentarily generate glare that could be experienced from vantage points in the surrounding area due to the presence of reflective construction equipment and materials. However, and as previously stated, public views of the project site are mostly limited to I-8 and given the regular presence of construction vehicles in the landscape, construction-related glare associated with equipment and vehicle presence is not anticipated to adversely affect daytime views. The duration of equipment and vehicle-generated glare that may be experienced by viewers in the surrounding area during project construction would also be short-term. Therefore, constructed-generated glare is considered a less than significant impact.

The proposed 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. With the incorporation of development setbacks from I-8 and the installation of 7-foot-high slatted chain-link fencing around the project site perimeter, the PV panels would not create a significant source of glare that could impact views during daylight hours. Additionally, public views of the project site are relatively limited and, as such, operation-related glare and glint 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.

Nevertheless, reflected light from the proposed PV panels can cause glint (a quick reflection) and glare (reflection that lasts for a longer duration), which can create hazards for air-traffic-control personnel, motorists, and other potential receptors. Glare can result in visual hazards and temporary loss of vision (also known as flash blindness). As such, a glare analysis was conducted for the project (contained in Appendix B of this EIR), to assess the potential glare impacts associated with project implementation. The glare analysis was conducted per the Federal Aviation Administration's (FAA) recommended procedures described in the Technical Guidance for Evaluating Selected Solar Technologies on Airports, and the geometric glare modeling software used adheres to the FAA policy regarding solar energy system projects on federally obligated airports (Appendix B of this EIR). This policy does not apply to the project but was included in the Glare Analysis Report to describe the standard methodologies used to assess solar glare near operating airports. Specifically, the glare analysis and software quantify the level of ocular impact hazard (reported as green or yellow glare) and pinpoints the exact time of year the glare would occur.

The hazard level of glare depends on the ocular impact to the observer. Generally, an ocular impact is calculated as a function of the size of the glare spot and the intensity of the light. For the purpose of the Glare Analysis Report contained in Appendix B of this EIR, an ocular impact is classified in one of three categories, as follows:

- Green: Low potential for the glare to cause an after-image
- Yellow: Potential to cause a temporary after-image
- Red: Potential to cause retinal burn and permanent eye damage

Because of the project's vicinity to the Naval Air Facility El Centro (NAF), which is a U.S. Navy facility (located approximately 3 miles to the northeast), the presence of I-8, and potential dwellings with direct view of the project, a 5-mile-radius study area was used for the glare analysis. A typical 5-mile study radius was used because that distance approximates the maximum distance that an observer standing at ground-level could see the proposed photovoltaic panels before the curvature of the Earth would intervene (assuming a perfect sphere, no built environmental obstruction, and flat topography) (Appendix B of this EIR). Dudek performed a visibility analysis on the surrounding terrain to predict where the project would be visible at any location within the study area and a geometric glare analysis for the identified potential receptors to determine where and when glare might be encountered. From the visibility and geometric glare analysis, the identified five airport receptors and all observation points and routes are shown in Figure 3.2-14.

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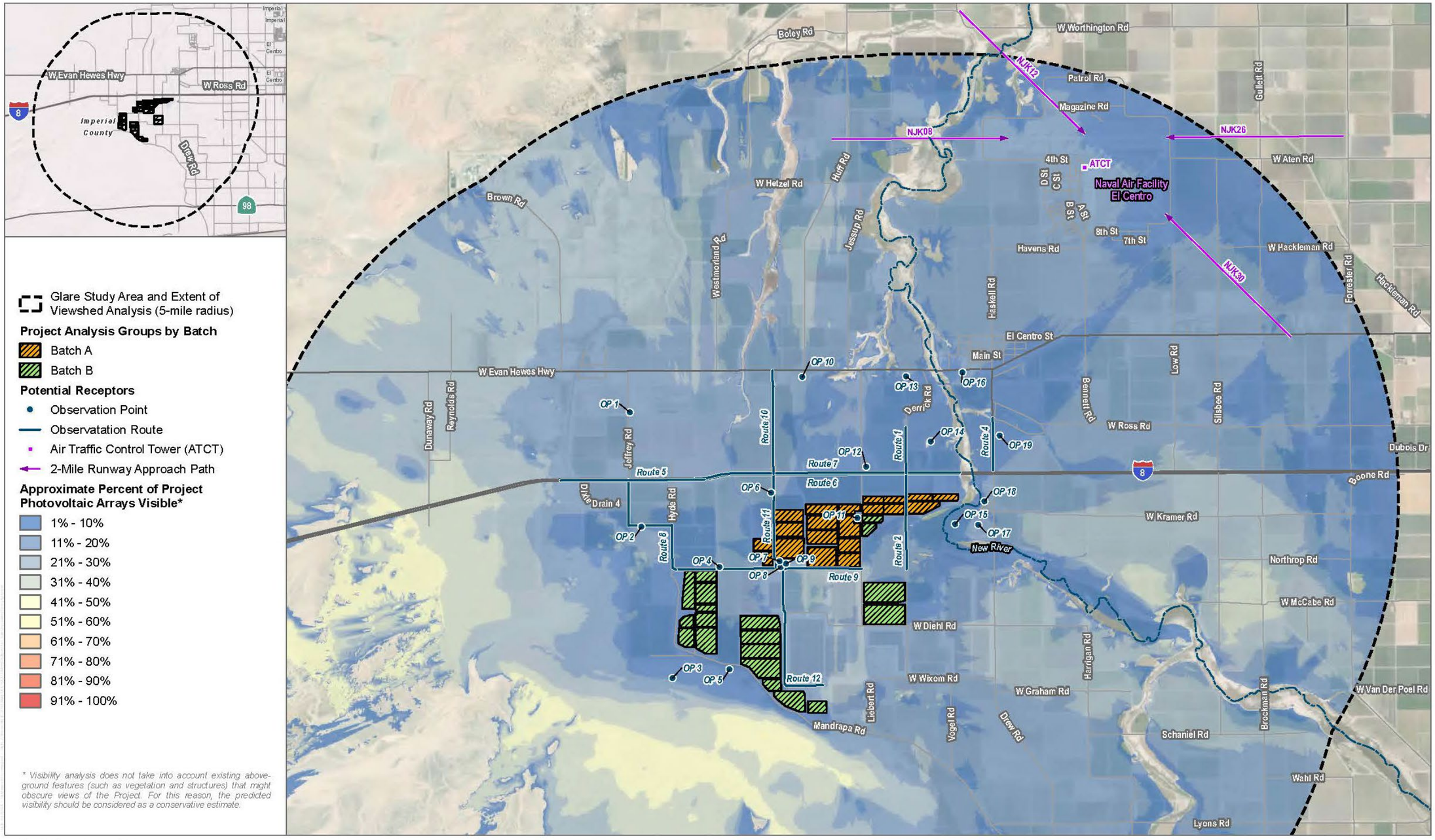
Figure 3.2-14.Glare Study Area and Potential Receptors



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Glare Analysis Results

Results for Airport Receptors. According to the Glare Analysis Report prepared for the project, the project would not result in any glare in the "Green" or "Yellow" ocular hazard levels to any of the receptors associated with airport operations at NAF.

Results for Point and Route Receptors. The results of the analysis indicate that, under the proposed project parameters described in Section 4.1 of the Glare Analysis Report contained in Appendix B of this EIR, most of the point and route receptors analyzed will receive some "green" glare (low potential for after image) and some will receive "yellow" glare (potential for after image). The summarized "Green" and "Yellow" glare results can be found in Table 6 and Table 7 of the Glare Analysis Report contained in Appendix B of this EIR.

- **Interstate 8 Receptors:** The eastbound and westbound lanes of I-8 (Route IDs 5, 6, and 7 as shown in Figure 3.2-14) will receive a small duration of "green" glare and no "yellow" glare from the proposed PV arrays. This "green" glare will occur around 6 minutes per day, on average, during the fall and winter months, and only when the sun is low in the sky (in the early mornings and early evenings). There are currently no thresholds for acceptable levels of glare towards road receptors, but because this low-hazard glare is predicted to occur at a time when there will be considerable baseline levels of glare from the rising or setting sun, it is not anticipated that the project will have a significant impact on motorists traveling on I-8 (Appendix B of this EIR).
- **Dwelling Receptors:** A total of 13 of the 19 dwellings analyzed are predicted to receive some amount of "green" glare (low potential for after image), with 2 of the dwellings predicted to also receive "yellow" glare (potential for after image). The average daily duration of glare is predicted to occur for less than 7 minutes, with maximum daily durations less than 14 minutes. All the glare predicted towards dwelling receptors is anticipated to occur when the sun is around 1° above the horizon, in the very early mornings and very early evenings. There are currently no thresholds for acceptable levels of glare towards dwelling receptors, but because the glare predicted towards these receptors occurs for less than 15 minutes per day and is coincident with the glare from the rising and setting sun, it is not anticipated that the project will have a significant impact on nearby dwelling receptors (Appendix B of this EIR).
- **Other Route Receptors:** Of the non-interstate routes analyzed, four were predicted to receive glare in the "green" (low potential for after image) or "yellow" (potential for after image) ocular impact categories. These routes are identified as Routes 8, 9, 11, and 12 in Figure 3.2-14. All four of these routes are located south of I-8 and west of New River. After the completion of the project, all the affected portions of these routes will likely be used primarily as access roads for the operation and maintenance of the various solar facilities in the area. These four routes will receive, on average, between 4 and 12 daily minutes of "green" glare, and between 1 and 16 daily minutes of "yellow" glare. This glare could occur on most days of the year and would be limited to times when the sun is less than 1° above the horizon, in the early mornings and early evenings. During these times, the glare will be aligned coincident with the glare from the rising/setting sun, which is a significantly more intense source of glare. Because of this and the fact that these routes will be traveled at relatively low speeds by vehicles associated with the operation and maintenance of the solar

facilities, it is not anticipated that the project will have a significant effect on these route receptors (Appendix B of this EIR).

According to the glare analysis results contained in Appendix B of this EIR, nearly all the glare predicted towards receptors will occur when the sun is less than 1° above the horizon, during sunrise and sunset. From the observer's point of view, this glare will be aligned with the setting/rising sun, similar to what would be seen over a lake or ocean during these times, but less intense due to the implementation of antireflective coatings on the project's PV modules. The results indicate that the glare produced by the project will not result in more ocular impact than a smooth water body under conservative assumptions and will result in far less impact than the hazards posed due to viewing the unfiltered sun.

Based on the rationale and the results of the glare analysis provided above, project-related glare impacts would be considered less than significant.

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 proposed project, the proposed project will be decommissioned and dismantled. No grading or significant landform modifications would be required during decommissioning activities upon site restoration in the future. Although the project site would be visually disrupted in the short-term during decommissioning activities, because extensive grading is not required and these activities would be temporary, the visual character of the project site would not be substantially degraded in the short-term and related impacts would be less than significant.

Residual

Impacts related to glare and glint impacts to roadway travelers, nearby residences, or flights 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 proposed project would not result in residual significant unmitigable impacts to the visual character of the project site or add substantial amounts of light and glare.

3.3 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. In addition, HDR prepared a land evaluation and site assessment (LESA) for the project site. This report is included in Appendix C of this EIR.

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 1900s, 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. According to the 2023 Imperial County Agricultural Crop and Livestock Report, gross production for 2023 was valued at $2,692,716,000. This is an increase of 2.36 percent compared to the 2022 gross value. In 2023, there were 578,659 harvested acres reported, up 4.80 percent from 2022. The number one commodity continues to be cattle followed by alfalfa, leaf lettuce, head lettuce, spinach, onions, broccoli, bermuda grass hay, carrots and alfalfa seed rounding out the top ten commodities (Imperial County Agricultural Commissioner 2023).

Important Farmland

According to the California Department of Conservation’s (DOC) California Important Farmland Finder and as shown in Figure 3.3-1, the project site is designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Other Land, and Urban and Built-Up Land (DOC 2021). Table 3.3-1 provides an acreage breakdown of Important Farmland within the project site.

Figure 3.3-1. Important Farmlands

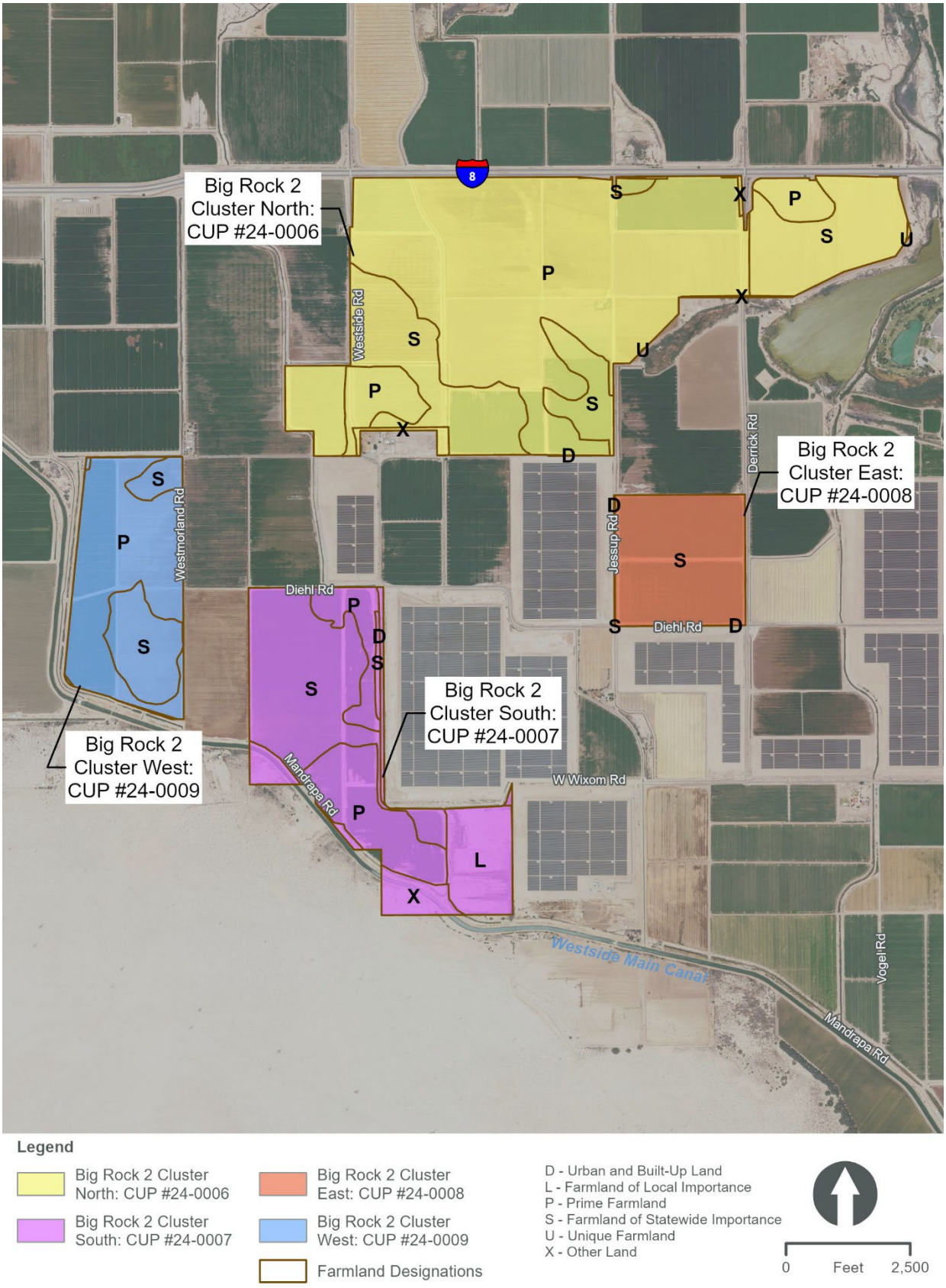

Table 3.3-1. Farmland Mapping and Monitoring Program Designations within the Project Site

Important Farmland	Acreage
Prime Farmland	973.24
Farmland of Statewide Importance	753.80
Unique Farmland	0.06
Farmland of Local Importance	65.08
Other Land	51.04
Urban and Built-Up Land	9.81
Total	**1,853.03**

Williamson Act Contract Land

According to the California Williamson Act Enrollment Finder Web map produced by the DOC, Imperial County has a status of "Non-Participating or Withdrawn" (DOC 2024). Therefore, the project site does not contain Williamson Act contracted land.

3.3.2 Regulatory Setting

This section identifies and summarizes 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 terminated 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 nonirrigated 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 3.3-2 provides a summary of agricultural land within Imperial County converted to non-agricultural uses during the time frame from 2016 to 2018.

Table 3.3-2. 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
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
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 3.3-3 provides a General Plan goal and policy consistency evaluation for the project.

Table 3.3-3. 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 would temporarily convert land designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and 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 pre-project condition. Therefore, the proposed project would not permanently convert Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance to non-agricultural uses.
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 site is designated for agriculture land use in the County General Plan. The project would include development of a solar facility, BESS, and associated infrastructure adjacent to productive agricultural lands surrounding the project site. The project would not include a residential component that would induce urbanization adjacent to the project. Furthermore, with the approval of a General Plan Amendment, Zone Change, and CUPs, 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 would include development of a solar facility adjacent to productive agricultural lands surrounding the project site. 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 involves the construction and operation of solar facility in a rural area. While the proposed project will introduce development in the area, it does not include residential uses that would, in turn, create a demand for other uses such as commercial, employment centers, and supporting services.
Objective 2.3. Maintain agricultural lands in parcel size configurations that help assure	Consistent	The project would temporarily convert agricultural land to non-agricultural uses. However, the project

that viable farming units are retained.		would not be subdivided into smaller parcels. A reclamation plan will be prepared for the project site, which when implemented, would return the site to pre-project conditions after the solar uses are discontinued.
Objective 2.4. Discourage the parcelization of large holdings.	Consistent	See response to Objective 2.3 above.
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	Upon approval of a General Plan Amendment, Zone Change, and CUPs, the proposed project would be an allowable use within an applicable agricultural zone, and the existing zoning of the project site would be consistent with the existing General Plan land use designation.
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 General Plan Amendment, Zone Change, and CUPs, the proposed project would be an allowable use within an applicable agricultural zone. Additionally, the project does not include the development of housing.
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 and BMPs proposed in other resource sections, 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 facility if the area is not properly maintained and managed to control weeds and pests. Mitigation Measure AG-2 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 General Plan 2015

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 utilizes the LESA model in conjunction with other readily available information sources in assessing impacts on agriculture and farmland. As indicated in the environmental setting, a LESA model has been prepared that addresses the project site. This report is included as Appendix C of this EIR. The analysis prepared for this EIR also 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. These sources were used to determine the agricultural significance of the land within the project site.

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 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?

Implementation of the project would result in the temporary conversion of land currently under or available for agricultural production to non-agricultural uses:

- 973.24 acres of Prime Farmland
- 753.80 acres of Farmland of Statewide Importance
- 0.06 acres of Unique Farmland

The loss of agricultural land designed Prime Farmland, Farmland of Statewide Importance, and Unique Farmland is typically considered a significant impact under CEQA.

Approximately 65.08 acres of the project site are classified as Farmland of Local Importance and 51.04 acres are classified as Other Land. It should be noted that analysis of Farmland of Local Importance and Other Land is not required under CEQA significance criteria, as these designations are not considered an "agricultural land" per CEQA Statute Section 21060.1(a).

To verify the farmland designations on the project site, the LESA model was used with the results provided in Appendix C of this EIR. Based on the LESA's scoring methodology (Table 3.3-4), a site scoring of 60 points or higher is typically considered "significant" unless either land evaluation (LE) or site assessment (SE) subscore is less than 20 points. As shown in Table 3.3-5, the project site's LE subscore is 33.71, while the SA subscore is 36.00. The final LESA score is 69.71. Therefore, with both subscores above 20, the project is considered to have a significant impact on agricultural

resources. As shown, the LESA score for the project site supports the farmland designations as identified in the FMMP. Therefore, their conversion to non-agricultural use, albeit temporary, is considered a significant impact. Implementation of Mitigation Measures AG-1a and AG-1b would reduce this impact to a level less than significant.

Table 3.3-4. California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39 points	Not considered significant
40 to 59 points	Considered significant only if LE and SA subscores are greater than or equal to 20 points
60 to 79 points	Considered significant unless either LE or SA subscore is less than 20 points
80 to 100 points	Considered significant

Source: Appendix C of this EIR

Table 3.3-5. Final Land Evaluation Site Assessment Score Sheet Summary

	Factor Rating (0-100 Rating)	Factor Weighting (Total =1.00)	Weighted Factor Rating
Land Evaluation			
1. LCC Rating	76.16	0.25	19.04
1. Storie Index Rating	58.68	0.25	14.67
LE Subscore	--	--	33.71
Site Assessment			
1. Project Size Rating	100	0.15	15
2. Water Resource Availability Rating	100	0.15	15
3. Surrounding Agricultural Land Rating	40	0.15	6
4. Surrounding Protected Resource Lands Rating	0	0.05	0
Site Assessment Subscore	--	--	36
TOTAL	**--**	**--**	**69.71**

Source: Appendix C of this EIR

As discussed in Chapter 2, Project Description, the project applicant would be required to restore the project site to pre-existing conditions following project operations; therefore, agricultural uses would be possible in the future. Given that the project facilities would be constructed near the existing grade, restoration of the project site to facilitate future cultivated agriculture would generally be feasible. However, implementation of the project would replace existing agricultural uses within the solar facilities during the term of the CUPs and until the site is restored. Additionally, although the project applicant is proposing agriculture as the proposed end use, it is possible that project-related activities (e.g., soil disturbance) and subsequent restoration of the site could result in a net reduction

in Prime Farmland, Farmland of Statewide Importance, or Unique Farmland within the project site. These acreage reductions could occur through alterations in soil productivity or the retention of project-related structures. As a condition of project approval (CUP condition), a reclamation plan will be prepared for the project site. The reclamation plan will provide guidance and performance criteria to ensure that no net reduction in Important Farmland occurs. Implementation of Mitigation Measure AG-1b would reduce long-term impacts to a level less than significant by ensuring compliance with a Site Reclamation Plan documenting procedures by which the project site will be returned to its current agricultural conditions.

Mitigation Measure(s)

AG-1a **Payment of Agricultural and Other Benefit Fees.** Prior to the issuance of a grading permit or building permit for the project, one of the following options included below shall be implemented:

A. Mitigation for Non-Prime Farmland:

Option 1: *Provide Agricultural Conservation Easement(s).* The Permittee shall procure Agricultural Conservation Easements on a "1 on 1" basis on land of equal size, of equal quality farmland, outside the path of development. The conservation easement shall meet DOC regulations and shall be recorded prior to issuance of any grading or building permits; or

Option 2: *Pay Agricultural In-Lieu Mitigation Fee.* The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 20 percent of the fair market value per acre for the total acres of the proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Imperial County Agricultural Commissioner's office and will be used for such purposes as the acquisition, stewardship, preservation, and enhancement of agricultural lands within Imperial County; or,

Option 3: *Public Benefit Agreement.* The Permittee and County voluntarily enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that: 1) is consistent with Board Resolution 2023-#17; and 2) must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation and enhancement of agricultural lands within Imperial County and to implement the goals and objectives of the Agricultural Benefit program (as amended by the Board of Supervisors on November 7, 2023: Resolution "Amending the Public Benefit Program for use with Solar Power Plants in Imperial County"), as specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy.

B. Mitigation for Prime Farmland:

Option 1: *Provide Agricultural Conservation Easements.* Provide Agricultural Conservation Easement(s). The permittee shall procure Agricultural Conservation Easements on a "2 on 1" basis on land of equal size, of equal quality farmland, outside the path of development. The conservation easement shall meet DOC

regulations and shall be recorded prior to issuance of any grading or building permits; or

Option 2: *Agricultural In-Lieu Mitigation Fee.* The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 30 percent of the fair market value per acre for the total acres of the proposed site based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Imperial County Agricultural Commissioner's office and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County; or

Option 3: *Public Benefit Agreement.* The Permittee and County voluntarily enter into an enforceable Public Benefit Agreement or Development Agreement that includes an Agricultural Benefit Fee payment that 1) is consistent with Board Resolution 2023-#17; and 2) must be held by the County in a restricted account to be used by the County only for such purposes as the stewardship, preservation and enhancement of agricultural lands within Imperial County and to implement the goals and objectives of the Agricultural Benefit program (as amended by the Board of Supervisors on November 7, 2023: Resolution "Amending the Public Benefit Program for use with Solar Power Plants in Imperial County", as specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy; the Project and other recipients of the Project's Agricultural Benefit Fee funds; or emphasis on creation of jobs in the agricultural sector of the local economy for the purpose of off-setting jobs displaced by this project; or

Option 4: *Avoid Prime Farmland.* The Permittee must revise their Conditional Use Permit Application/Site Plan to avoid Prime Farmland.

AG-1b **Site Reclamation Plan.** In addition to Mitigation Measure AG-1a for Prime Farmland and Non-Prime Farmland, the Applicant shall submit to Imperial County, a Reclamation Plan prior to issuance of a grading permit. The Reclamation Plan shall document the procedures by which the project site will be returned to its current agricultural condition. Permittee shall also provide financial assurance/bonding in the amount equal to a cost estimate prepared by a California-licensed general contractor or civil engineer for implementation of the Reclamation Plan in the event Permittee fails to perform the Reclamation Plan.

Significance after Mitigation

With the implementation of Mitigation Measure AG-1a, potential impacts on valuable farmlands would be minimized through provision of an agricultural conservation easement, payment into the County agricultural fee program, or entering into a public benefit agreement. With implementation of Mitigation Measure AG-1b, potential impacts on valuable farmlands would be minimized by ensuring the project applicant adheres to the terms of a site Reclamation Plan documenting procedures by which the project site will be returned to its current agricultural conditions. These mitigation measures would reduce the impact on Important Farmlands, including Prime Farmland, to a less than significant level.

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 2024). Therefore, the project would not conflict with a Williamson Act contract and no impact would occur.

Agricultural Zoning. The project site is located on 24 privately-owned legal parcels zoned A-2, A-2-RE, A-2-R, A-2-R-RE, A-3, and A-3-RE.

Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*
- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

Upon approval of the CUPs, the project's uses 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 energy facility with an integrated BESS is not expected to inhibit or adversely affect adjacent agricultural operations through the placement of sensitive land uses or generation of excessive dust or shading. 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 provided in Table 3.3-3. As provided, the project is generally consistent with certain Agricultural Element Goals and Objectives of the County General Plan, but mitigation is required for the project.

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, although the project would temporarily convert lands currently under agricultural production, the project applicant is proposing agriculture as the end use and will prepare a site-specific Reclamation Plan to minimize impacts related to short- and long-term conversion of farmland to non-agricultural use. Additionally, the County is requiring Mitigation Measure AG-1b to ensure that post-restoration of the project facilities result in no net reduction in Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. With implementation of Mitigation Measure AG-1b, this impact would be reduced to a level less than significant.

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. 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 and best management practices (BMPs) proposed in other resource sections, 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, implementation of Mitigation Measure AG-1b would require the project applicant or its successor in interest 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. Implementation of Mitigation Measure AG-1b would reduce this impact to a level less than significant.

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-2 would reduce this impact to a level less than significant.

Mitigation Measure(s)

AG-2 **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, and application rates. 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 reasonable 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

With implementation of Mitigation Measure AG-1b, 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 and BESS activities). In addition, the proposed project would be required to implement a weed and pest management control plan per Mitigation Measure AG-2. 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. With implementation of Mitigation Measure AG-1b, the project applicant would be required to adhere to the terms of the comprehensive reclamation plan that would restore the project site to pre-existing (pre-project) conditions following decommissioning of the project (after their use for solar generation activities). Implementation of Mitigation Measure AG-1b would reduce this impact to a level less than significant.

Residual

With mitigation, issues related to the conversion of Important Farmland to non-agricultural use would be mitigated and reduced to a less than significant level. Operation of the project, subject to the approval of the CUPs, would generally be consistent with applicable federal, state, regional, and local plans and policies. Following the proposed use (e.g., solar facility and BESS), 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 on agricultural resources.

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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. Information contained in this section is summarized from the *Air Quality and Greenhouse Gas Emissions Technical Report* prepared by HDR Engineering, Inc. This report is included in Appendix D 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. Both the ICAPCD and South Coast Air Quality Management District (SCAQMD) have jurisdiction within the SSAB. The ICAPCD has full jurisdiction within Imperial County and SCAQMD only has jurisdiction within Riverside County.

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

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

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

The wind in Imperial County follows two general patterns. Wind statistics indicate prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident. The prevailing winds from the west and northwest occur seasonally from fall through spring and are known to be from the Los Angeles area. Occasionally, Imperial County experiences periods of extremely high wind speeds. Wind speeds can exceed 31 miles per hour (mph), and this occurs most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements (Appendix D 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: CAPCOA 2021

Attainment Status

The CAA requires the USEPA to designate areas within the country as either “attainment” or “nonattainment” for each criteria pollutant based on whether the NAAQS have been achieved. Similarly, the CCAA requires the CARB to designate areas within California as either “attainment” or “nonattainment” for each criteria pollutant based on whether the CAAQS have been achieved. If a pollutant concentration is lower than the standard, the area is classified as “attainment” for that

pollutant. If a pollutant exceeds the standard, the area is classified as “nonattainment” for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “unclassified” or “unclassifiable.” The designation of “unclassifiable/attainment” means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards.

The attainment status for the portion of the SSAB encompassing the project site is shown in Table 3.4-2. As shown in Table 3.4-2, the Imperial County portion of the SSAB is currently designated as nonattainment for O_3 under State standards. Under federal standards, the Imperial County portion of the SSAB is in nonattainment for O_3, and $PM_{2.5}$. 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}	Attainment	Attainment
$PM_{2.5}$	Attainment	Nonattainment
CO	Attainment	Unclassified/attainment
NO_2	Attainment	Unclassified/attainment
SO_2	Attainment	Unclassified/attainment
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard
Lead	Attainment	Unclassified/Attainment

Source: Appendix D 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. The ICAPCD operates a network of monitoring stations throughout the County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations.

Table 3.4-3 shows the most recent monitoring data from CARB from 2019 to 2023 from the El Centro monitoring station.

Table 3.4-3. Ambient Air Quality Monitoring Data

	Year				
	2019	2020	2021	2022	2023
O_3					
Maximum 1-hour concentration (ppm)	0.080	0.097	0.096	0.113	0.100
Maximum 8-hour concentration (ppm)	0.071	0.077	0.084	0.079	0.091
Number of days standard exceeded					
National 1-hour standard	0	1	1	2	5
State 8-hour standard	1	2	7	10	15
NAAQS 8-hour (>0.07 ppm)	1	2	6	10	15
PM_{10}					
National maximum 24-hour concentration (µg/m^3)	123.9	197.5	194.5	554.6	231.6
State maximum 24-hour concentration (µg/m^3)	130.0	197.7	186.9	553.6	224.0
National annual average concentration (µg/m^3)	34.9	41.5	41.8	44.7	36.7
State annual average concentration (µg/m^3)	35.6	41.5	41.6	45.5	36.7
Number of days standard exceeded					
National 24-hour standard	0	2	1	2	3
State 24-hour standard	54	92	89	99	65
$PM_{2.5}$					
National maximum 24-hour concentration (µg/m^3)	21.4	28.5	19.1	30.6	42.0
State maximum 24-hour concentration (µg/m^3)	21.4	28.5	19.1	30.6	42.0
National annual average concentration (µg/m^3)	7.9	9.8	8.4	8.9	7.8
State annual average concentration (µg/m^3)	7.9	9.8	8.3	8.9	*
Number of days standard exceeded					
NAAQS 24-hour standard	1	5	2	5	3

Source: CARB 2024a

Notes: O_3 = ozone; PM_{10} = particles of 10 micrometers and smaller; $PM_{2.5}$ = particles of 2.5 micrometers and smaller; µg/m^3 = micrograms per cubic meter; ppb = parts per billion; NAAQS = national ambient air quality standards; CAAQS = California Ambient air quality standards.

Valley Fever

Valley Fever (also called *coccidioidomycosis* or "cocci") is a fungal lung infection that is caused by a fungus that lives in the soil. This fungus, Coccidioides, has been found in the southwestern United States and can be breathed in when soil is disturbed, and the fungus is spread through the air. People can contract Valley Fever when working or living in areas with soil disturbance such as during construction activities for grading or soil movement. Valley Fever causes flu-like symptoms including fatigue, cough, fever, shortness of breath, headache, night sweats, muscle aches, or rash, but can also present no symptoms in some people. Because of these common symptoms, people may delay treatment and let the infection take its course without medical attention. Valley fever can be serious and even fatal. Recently in California, there have been more than 1,000 people hospitalized with Valley fever each year, of which about 1 in 10 have died in the hospital (Appendix D of this EIR).

Valley fever is contracted by breathing in dust from outdoor air that contains spores of the Coccidioides fungus that grows in the soil. Like seeds from a plant, a fungus grows and spreads from tiny spores that are too small to see. When soil or dirt is stirred up by strong winds or while digging, dust containing these fungus spores can get into the air. Anyone who lives, works, or travels in an area where the Valley fever fungus grows can breathe in these fungus spores from outdoor dust without knowing it and become infected (Appendix D of this EIR).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. Sensitive Receptor locations may include hospitals, schools, and day care centers, and such other locations as the air district board or California Air Resources Board may determine (Appendix D of this EIR).

The nearest sensitive receptor is a residence located within the central portion of the Big Rock 2 Cluster North Site, in the southwest corner of the Jessup Road/W Campbell Road intersection. Other nearby sensitive receptors include the following:

- Residence located near the northeastern corner of the Big Rock 2 Cluster West site (north of West Vaughn Road)
- Residence located near the northeastern corner of the Big Rock 2 Cluster East site (west of Derrick Road)
- Residence located at the southwest corner of the Vogel Road/W Wixom Road intersection

3.4.2 Regulatory Setting

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

Federal

Clean Air Act and National Ambient Air Quality Standards

The Clean Air Act (CAA) is the primary federal law governing air quality. The CAA is regulated by the USEPA, which sets standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS have been established for six criteria air pollutants that have been linked to potential health concerns: O_3, PM_{10},

$PM_{2.5}$, CO, NO_2, and SO_2. Additionally, national standards exist for Pb. The NAAQS are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. The federal regulatory schemes also cover toxic air contaminants (TACs).

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.

The Federal CAA requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). USEPA is responsible for implementing the programs established under the CAA, programs such as establishing and reviewing the federal ambient air quality standards and judging the adequacy of SIPs. If a state contains areas that violate the national standards, the Federal CAA requires the State to revise its SIP to incorporate additional control measures to reduce air pollution. USEPA has authorized States such as California with air programs that meet or exceed federal standards to implement many of the federal programs while retaining an oversight role.

State

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective (stringent) than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

The CCAA is administered by the California Air Resources Board (CARB) at the state level and by the air quality management districts and air pollution control districts (air districts) at the regional and local levels. CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through air district-level air quality management plans that would be incorporated into the SIP. In California, USEPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB is responsible for establishing state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The act also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

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.

Assembly Bill 2588

California regulates TACs primarily through the Tanner Air Toxics Act of 1983 (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. In August 1998, CARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate. Among the programs and strategies CARB has developed to reduce diesel emissions for various sources, including off-road sources (construction equipment), and on-road trucks (haul trucks). In 2015, OEHHA adopted the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.

Senate Bill 375

SB 375, also known as the Sustainable Communities and Climate Protection Act, provides for a new planning process that coordinates land use planning, regional transportation plans (RTPs), and funding priorities, originally in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires RTPs to incorporate a "sustainable communities strategy" (SCS). The goal of the SCS is to reduce regional VMT through land use planning and consequent transportation patterns. SCS measures include transportation demand management, transportation system management, and pricing.

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. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	National Standards[1]		California Standards[2]
		Primary[3]	Secondary[4]	
O_3	1 hour	-	Same as Primary Standard	0.09 ppm
	8 hour	0.07 ppm		0.07 ppm
PM_{10}	24 hour	150 µg/m^3	Same as Primary Standard	50 µg/m^3
	Annual	-		20 µg/m^3

Pollutant	Averaging Time	National Standards[1]		California Standards[2]
		Primary[3]	Secondary[4]	
$PM_{2.5}$	24 hour	35 µg/m^3	Same as Primary Standard	-
	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	12 µg/m^3
CO	1 hour	35 ppm	-	20 ppm
	8 hour	9 ppm	-	9 ppm
	8 hour (Lake Tahoe)	-	-	6 ppm
NO_2	1 hour	100 ppb	-	0.18 ppm
	Annual Arithmetic Mean	0.053 ppm	Same as Primary Standard	0.03 ppm
SO_2	1 hour	75 ppb	-	0.25 ppm
	3 hour	-	0.5 ppm	-
	24 hour	0.14 ppm	-	0.04 ppm
	Annual Arithmetic Mean	0.03 ppm	-	-
Pb	30-day Average	-	-	1.5 µg/m^3
	Calendar Quarter	1.5 µg/m^3	Same as Primary Standard	-
	Rolling 3-month Average	0.15 µg/m^3		-
Visibility Reducing Particles	8 hour	No National Standards		-[5]
Sulfates	24 hour	No National Standards		25 µg/m^3
Hydrogen Sulfide	1 hour	No National Standards		0.03 ppm
Vinyl Chloride	24 hour	No National Standards		0.01 ppm

Pollutant	Averaging Time	National Standards[1]		California Standards[2]
		Primary[3]	Secondary[4]	

Source: CARB 2024b
Notes:
O_3 = ozone; PM_{10} = particles of 10 micrometers and smaller; $PM_{2.5}$ = particles of 2.5 micrometers and smaller; CO = carbon monoxide; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; Pb = lead; ppm = parts per million; µg/m^3 = micrograms per cubic meter; ppb = parts per billion
1. National standards (other than O_3, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the USEPA for further clarification and current national policies.
2. California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
3. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
4. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
5. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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}.** Imperial Valley is classified as nonattainment for federal and state PM_{10} standards. As a result, ICAPCD was required to develop a PM_{10} Attainment Plan. The final plan was adopted by ICAPCD on August 11, 2009 (ICAPCD 2009).
- **2013 Imperial County Plan for 2006 24-hour $PM_{2.5}$ for Moderate Nonattainment Area.** U.S. EPA designated Imperial County as nonattainment for the 2006 24-hr $PM_{2.5}$ standard, effective December 14, 2009. The 2013 $PM_{2.5}$ SIP demonstrates attainment of the 2006 $PM_{2.5}$ NAAQS "but-for" transport of international emissions from Mexicali, Mexico. The City of Calexico, California shares a border with the City of Mexicali. Effective July 1, 2014, the City of Calexico was designated nonattainment, while the rest of the SSAB was designated attainment (ICAPCD 2014).
- **2017 Imperial County Plan for 2008 8-hour Ozone Standard.** Because of Imperial County's "moderate" nonattainment status for 2008 federal 8-hour O_3 standards, ICAPCD was required to develop an 8-hour Attainment Plan for Ozone (ICAPCD 2017a). The plan includes control measures which are an integral part of how the ICAPCD currently controls the ROG and NO_X

emissions within the O_3 nonattainment areas. The overall strategy includes programs and control measures which represent the implementation of Reasonable Available Control Technology (40 CFR 51.912) and the assurance that stationary sources maintain a net decrease in emissions.

- **2018 Imperial County Plan for PM_{10}**. Imperial Valley is classified as nonattainment for federal and state PM_{10} standards. The 2018 SIP maintained previously adopted fugitive dust control measures (Regulation VIII) that were approved in the Imperial County portion of the California SIP in 2013 (see above) (ICAPCD 2018a).
- **2018 Imperial County Plan for $PM_{2.5}$.** U.S. EPA designated Imperial County as nonattainment for the 2018 24-hr $PM_{2.5}$ standard. The 2018 $PM_{2.5}$ SIP concluded that the majority of the $PM_{2.5}$ emissions resulted from transport in nearby Mexico. Specifically, the SIP demonstrates attainment of the 2006 $PM_{2.5}$ NAAQS "but for" transport of international emissions from Mexicali, Mexico. In accordance with the CCAA, the $PM_{2.5}$ SIP satisfies the attainment demonstration requirement satisfying the provisions of the CCAA (ICAPCD 2018b).

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

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

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 provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

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

- Reduce greenhouse gas emissions and improve air quality.

Imperial County General Plan

The Imperial County General Plan serves as the overall guiding policy for the County. The Conservation and Open Space Element includes objectives for helping the County achieve the goal of improving and maintaining the quality of air in the region. Table 3.4-5 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.

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 Measures. 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 Measures. 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.

CONSTRUCTION

For construction projects, the *Air Quality Handbook* indicates that the significance threshold for NO_x is 100 pounds per day, 75 pounds per day for ROG, and 150 pounds per day for PM_{10}. As discussed in the ICAPCD's *Air Quality Handbook*, the approach to evaluating construction emissions should be qualitative rather than quantitative. In any case, regardless of the size of the project, the standard mitigation measures for construction equipment and fugitive PM_{10} must be implemented at all construction sites. The implementation of discretionary mitigation measures, as listed in Section 7.1 of the ICAPCD's *Air Quality Handbook*, apply to those construction sites that are 5 acres or more

for non-residential developments or 10 acres or more in size for residential developments. The mitigation measures found in Section 7.1 of the ICAPCD's handbook are intended as a guide of feasible mitigation measures and are not intended to be an all-inclusive comprehensive list of all mitigation measures. Table 3.4-6 presents the construction emission thresholds that are identified by ICAPCD.

Table 3.4-6. Imperial County Air Pollution Control District Significance Thresholds for Construction Activities

Pollutant	Thresholds
PM_{10}	150 pounds per day
ROG	75 pounds per day
NO_X	100 pounds per day
CO	550 pounds per day

Source: ICAPCD 2017b

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

OPERATIONS

Air quality analyses should compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds in Table 3.4-7. Projects can be classified as either Tier 1 or Tier 2 projects, depending on the project's operational emissions. As shown in Table 3.4-7, Tier 1 projects are projects that emit less than 137 pounds per day of nitrogen oxide (NOx) or reactive organic gases (ROGs); less than 150 pounds per day of PM_{10} or SOx; or less than 550 pounds per day of CO or $PM_{2.5}$.

Tier 1 projects are not required to develop a Comprehensive Air Quality Analysis Report or an EIR and require the implementation of all feasible mitigation measures listed in Section 7.2 of the ICAPCD's Air Quality Handbook (ICAPCD 2017b). Alternatively, Tier 2 projects are projects that emit 137 pounds per day of NOx or ROG or greater; 150 pounds per day of PM_{10} or SOx or greater; or 550 pounds per day of CO or $PM_{2.5}$ or greater. Tier 2 projects are required to develop a Comprehensive Air Quality Analysis Report at a minimum, and are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures listed in Sections 7.2 and 7.3 of the ICAPCD's Air Quality Handbook (ICAPCD 2017b).

Table 3.4-7. Imperial County Air Pollution Control District Significance Thresholds for Operation

Criteria Pollutant	Tier 1 Thresholds	Tier 2 Thresholds
NO_x and ROG	Less than 137 pounds per day	137 pounds per day and greater
PM_{10} and SO_2	Less than 150 pounds per day	150 pounds per day and greater
CO and $PM_{2.5}$	Less than 550 pounds per day	550 pounds per day and greater
Level of Significance	Less than Significant	Significant Impact

Table 3.4-7. Imperial County Air Pollution Control District Significance Thresholds for Operation

Criteria Pollutant	Tier 1 Thresholds	Tier 2 Thresholds

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

Diesel Toxic Risk Thresholds

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

There is debate as to the appropriate levels of risk assigned to diesel particulates. The U.S. EPA has not yet declared diesel particulates as a toxic air contaminant. Using the CARB threshold, a risk concentration of one in one million (1:1,000,000) per micrograms per cubic meter ($\mu g/m^3$) of continuous 70-year exposure is considered less than significant.

Methodology

The analysis criteria for air quality impacts are based on the approach and methods discussed in the ICAPCD's *Air Quality Handbook* (ICAPCD 2017b). The ICAPCD's *Air Quality Handbook* establishes aggregate emission calculations for determining the potential significance of a project. In the event that the emissions exceed the established thresholds (Table 3.4-6 and Table 3.4-7), air dispersion modeling may be conducted to assess whether the project results in an exceedance of an air quality standard.

An air quality technical report was prepared by HDR Engineering, Inc. (Appendix D of this EIR). The emissions of criteria air pollutants were estimated using methodologies recommended by the ICAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Imperial County as well as timing and equipment identified by the project proponent. Associated emissions calculations and assumptions are included in Appendix D of this EIR.

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

Construction

For purposes of estimating project emissions, and based on information provided by the applicant, it is assumed that construction of the project would commence in April 2026 and is anticipated ending in October 2027. The project is assumed to have a 30-year lifespan and at the end of operation will be decommissioned. However, the EMFAC and OFFROAD models in CalEEMod only have

emission factors through 2050. As such, the year 2050 was assumed for estimating emissions from the decommissioning phase.

Earthmoving activities are expected to include the construction of the access roads, O&M building, substation, water storage tank(s), solar panel foundation supports, BESS(s), transmission poles and conductor stringing, and any storm water protection or storage (detention) facilities. The project is not anticipated to require paving, removal, or significant alteration of existing agricultural soil(s). Rather, solar panels would be installed atop the flat lots, leaving the farming soil relatively undisturbed and available for crop cultivation at the end of the project's life. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas to control dust and increase the reflectivity of the ground surface. However, the analysis conservatively assumes all 1,849 acres will be graded.

Regional emissions during construction have been estimated by assuming a conservative estimate of construction activities (i.e. assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. Assuming an early date for construction activities is conservative because emission factors decrease in future years due to improvements in engine technology and the retirement of older, dirtier equipment and vehicles from the fleet. , This is pursuant to state regulations that require vehicle fleet operators to phase-in less-polluting trucks.

All worker, vendor, and hauling trips would occur on public roadways (i.e., not within the project construction boundary). However, some driving on unpaved roads could occur to unload materials and installation of PV arrays. Therefore, an input value of 85% paved roads is utilized in the emissions model to account for some unpaved road usage. Vehicle speed would also be restricted to 15 miles per hour on both paved and unpaved roads.

Construction emissions were estimated using CalEEMod, version 2022, which incorporates CARB's EMFAC2021 model. For the purposes of the air quality analysis, it has been assumed that the contractor would implement dust control measures during construction pursuant to ICAPCD Regulation VIII. The applicant provided the number of construction workers and vendor trips as well as the trip lengths.

Operations

Once constructed, periodic maintenance of the PV solar and BESS facility would generally be limited to cleaning PV panels, monitoring, and site security. Since the project would share O&M, substation, and/or transmission facilities with other nearby PV solar and BESS projects, it is assumed the project would share personnel, thereby reducing the project's on-site staff to below the anticipated 4 to 10 full-time employees.

There are no expected sources of stationary emission sources (i.e. emergency generators). During operation of the proposed project, minimal amounts of emissions could be generated from maintenance operations, including routine cleaning and from periodic visits from service vehicles. Therefore, minimal additional emissions would be generated from vehicle trips by worker staff for periodic inspections or maintenance purposes and emissions will be analyzed qualitatively.

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 and BESS 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 RPS.

As shown in Table 3.4-6, the project is consistent with the applicable air quality goal and objectives from the Conservation and Open Space Element of the Imperial County General Plan. The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from fossil fuel burning facilities.

Furthermore, the thresholds of significance adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented in Table 3.4-6 and Table 3.4-7 would not conflict with or obstruct implementation of the applicable air quality plans.

As shown in Table 3.4-2, the project region is classified as nonattainment for federal O_3 and $PM_{2.5}$ standards. The region's SIP is made up of the following ICAPCD plans; 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}, and 2018 Imperial County Plan for $PM_{2.5}$. Construction of the project would generate emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ that could result in short-term impacts on ambient air quality in the study area. Sources of construction emissions include heavy-duty construction equipment (such as graders, trenchers, and loaders), worker, vendor, and haul truck vehicle emissions, and fugitive dust from material movement. As shown in Table 3.4-8under Impact 3.4-2, the emissions of criteria pollutants from project construction activities would exceed the ICAPCD significance threshold for PM_{10}. This potential impact is considered significant. However, implementation of Mitigation Measures AQ-1 through AQ-5 would minimize construction emissions. As shown in Table 3.4-9, with implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant.

It is assumed the project would share O&M, substation, and/or transmission facilities with other adjacent PV solar and BESS projects that have been approved and entitled by Imperial County, or with any future nearby proposed renewable energy projects. The facility would operate 24/7 with potentially 4 to 10 full-time employees at any given time. During long-term operations of the project, minimal amounts of criteria air pollutants would be generated from maintenance operations, including routine cleaning and from periodic visits from service vehicles. However, these events are expected to be occasional and result in minimal emissions. Therefore, minimal additional emissions would be generated from vehicle trips by worker staff for periodic inspections or maintenance purposes.

Additionally, the project does not include residential or commercial development. The project would have 4 to 10 full-time employees but would not induce unplanned population or employment growth. Therefore, the project would not conflict with or obstruct the implementation of the applicable air quality plan.

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

Mitigation Measure(s)

No mitigation measures are required.

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)?

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

The proposed project is anticipated to take approximately 18 to 24 months from the commencement of the construction process to complete. Construction activities would primarily involve site preparation and 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/battery units and security fencing.

As shown in Table 3.4-2, the project region is classified as nonattainment for federal O_3 and $PM_{2.5}$ standards. 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 shown in Table 3.4-8, the emissions of criteria pollutants from project

construction activities would exceed the ICAPCD significance threshold for PM_{10}. This potential impact is considered significant. However, implementation of Mitigation Measures AQ-1 through AQ-5 would reduce construction emissions.

As previously discussed above, the proposed project is not anticipated to significantly alter existing soils. Rather solar panels, which would occupy approximately 61 percent of the project site, would be installed atop the flat lots, leaving the farming soil relatively undisturbed and available for crop cultivation at the end of the project's life. All 1,849 acres were assumed to be graded with 15 percent of roads unpaved. Due to this conservative assumption, the ICAPCD threshold for PM_{10} would be exceeded. Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. The proposed project must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. Therefore, implementation of the Regulation VIII fugitive dust control measures (Mitigation Measure AQ-1) is required for the project.

Mitigation Measure AQ-2 would require all off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, meet, at a minimum, the Tier 4 Final California Emission Standards for Off-Road Compression-Ignition Engines as specified in C.C.R., Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. In the event a Tier 4 Final engine is not available for any off-road engine larger than 100 horsepower, that engine shall be equipped with retrofit controls that would provide NOx and particulate matter emissions that are equivalent to Tier 4 engine. Implementation of Mitigation Measure AQ-2 would be implemented to reduce PM_{10} emissions, but as shown in Table 3.4-9, would also have the co-benefit of reducing NOx emissions during construction. 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 NOx analysis. ICAPCD shall utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds.

Further, implementation of Mitigation Measure AQ-3 would require additional dust suppression methods (such as water or chemical stabilization) on all unpaved roads associated with construction activities, Mitigation Measure AQ-4 requires development and implementation of a dust suppression management plan prior to any earthmoving activity, and Mitigation Measure AQ-5 limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Accordingly, as shown in Table 3.4-9, with implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant.

Table 3.4-8. Unmitigated Daily Construction Maximum Criteria Air Pollutant Emissions

Construction Phase	Pounds/Day (lbs/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1: Site Preparation, Fencing, and Ingress/Egress (2026)	5.6	36.8	59.6	0.1	71.5	9.0
Phase 2: Civil Improvements – Grading/Roads/Earthwork (2026)	7.3	47.9	71.5	0.1	80.9	10.3
Phase 3: PV Panel & BESS Construction (2026)	11.4	51.6	160.2	0.1	79.3	10.8
Phase 3: PV Panel & BESS Construction (2027)	9.3	50.0	114.2	0.1	79.1	10.7
Phase 4: Testing & Commissioning (2027)	0.4	1.9	5.7	0.0	67.1	6.9
Phase 5: Decommissioning (2050)	3.5	18.8	57.2	0.1	78.1	9.7
Overlapping Phases						
Phase 1 (2026) + Phase 2 (2026)	12.9	84.7	131.1	0.2	152.4	19.3
Maximum	**12.9**	**84.7**	**160.2**	**0.2**	**152.4**	**19.3**
ICAPCD Thresholds	*75*	*100*	*550*	*N/A*	*150*	*N/A*
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**Yes**	**N/A**

Source: Appendix D of this EIR

Notes:

CO = carbon monoxide, NO_X = oxides of nitrogen, PM_{10} = coarse particulate matter, $PM_{2.5}$ = fine particulate matter, SO_X = oxides of sulfur, VOC = volatile organic compounds, ICAPCD = Imperial County Air Pollution Control District; N/A = Not applicable

Table 3.4-9. Mitigated Daily Construction Maximum Criteria Air Pollutant Emissions

Construction Phase	Pounds/Day (lbs/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1: Site Preparation, Fencing, and Ingress/Egress (2026)	1.9	7.8	74.3	0.1	69.1	7.4
Phase 2: Civil Improvements – Grading/Roads/Earthwork (2026)	3.7	18.8	89.1	0.1	78.7	8.8
Phase 3: PV Panel & BESS Construction (2026)	8.5	24.9	166.1	0.1	77.7	9.8
Phase 3: PV Panel & BESS Construction (2027)	6.5	25.0	119.9	0.1	77.6	9.8
Phase 4: Testing & Commissioning (2027)	0.4	1.8	5.6	0.0	66.2	6.8
Phase 5: Decommissioning (2050)	2.7	13.7	63.9	0.1	77.4	9.6
Overlapping Phases						
Phase 1 (2026) + Phase 2 (2026)	5.7	26.7	163.4	0.2	147.8	16.2
Maximum	**8.5**	**26.7**	**166.1**	**0.2**	**147.8**	**16.2**
ICAPCD Thresholds	*75*	*100*	*550*	*N/A*	*150*	*N/A*
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**No**	**N/A**

Source: Appendix D of this EIR

Notes:

CO = carbon monoxide, NO_X = oxides of nitrogen, PM_{10} = coarse particulate matter, $PM_{2.5}$ = fine particulate matter, SO_X = oxides of sulfur, VOC = volatile organic compounds, ICAPCD = Imperial County Air Pollution Control District; N/A = Not applicable

Operations. As previously discussed, it is assumed the project would share O&M, substation, and/or transmission facilities with other adjacent PV solar and BESS projects or with any future nearby proposed renewable energy projects. During long-term operations of the project, minimal amounts of criteria air pollutants would be generated from periodic vehicle trips for maintenance, inspections, and routine cleaning. However, these events are expected to be occasional and result in minimal emissions. Operational emissions are not anticipated to exceed ICAPCD's significance thresholds. 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-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. In addition, implementation of Mitigation Measure AQ-5 would limit the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less and Mitigation Measure

AQ-6 would ensure an Operational Dust Control Plan is implemented. Therefore, operational impacts would be less than significant.

Mitigation Measure(s)

AQ-1 **Fugitive Dust Control.** Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. Whereas these Regulation VIII measures are mandatory and are not considered project environmental mitigation measures, the project applicant is required to implement all standard mitigation measures as well as any feasible discretionary and enhanced measures from the ICAPCD CEQA Handbook listed below 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.** All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, shall meet, at a minimum, the Tier 4 Final California Emission Standards for Off-road Compression-Ignition Engines as specified in CCR, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. In the event a Tier 4 Final engine is not available for any off-road engine larger than 100 horsepower, that engine shall be equipped with retrofit controls that would provide NO_X and particulate matter emissions that are equivalent to Tier 4 engine. Drill rig engines shall meet a minimum of Tier 4 Interim California Emission Standards. 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 the 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. All unpaved roads associated with construction shall be effectively stabilized of dust emissions using stabilizers/suppressant before the commencement of all construction phases. This will be conducted monthly at a rate of 0.1 gallon/square yard of chemical dust suppressant. The project applicant shall apply chemical stabilization as directed by the product manufacturer to control dust between the panels as approved by ICAPCD, and other non-used areas (exceptions will be the paved entrance and parking area, and Fire Department access/emergency entry/exit points as approved by Fire/Office of Emergency Services [OES] Department).

AQ-4 **Dust Suppression Management Plan.** Prior to any earthmoving activity, the project applicant shall submit an Enhanced Dust Control Plan and obtain ICAPCD and ICPDS approval.

AQ-5 **Speed Limit.** During construction and operation of the project, the project applicant shall limit the speed of all vehicles operating onsite on unpaved roads to 15 miles per hour or less.

AQ-6 **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

As discussed above, the proposed 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). Furthermore, implementation of Mitigation Measure AQ-2 would ensure construction equipment will be equipped with an engine designation of EPA Tier 4 engine. 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 CUPs, would be consistent with applicable federal, state, regional, and local plans and policies. Further, implementation of Mitigation Measure AQ-3 would require additional dust suppression methods (such as water or chemical stabilization) on all unpaved roads associated with construction activities, Mitigation Measure AQ-4 requires development and implementation of a dust suppression management plan prior to any earthmoving activity, and Mitigation Measure AQ-5 limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Accordingly, as shown in Table 3.4-9, with implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant.

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

The nearest sensitive receptor is a residence located within the central portion of the Big Rock 2 Cluster North Site, in the southwest corner of the Jessup Road/W Campbell Road intersection. Other nearby sensitive receptors include the following:

- Residence located near the northeastern corner of the Big Rock 2 Cluster West site (north of West Vaughn Road)
- Residence located near the northeastern corner of the Big Rock 2 Cluster East site (west of Derrick Road)
- Residence located at the southwest corner of the Vogel Road/W Wixom Road intersection

Construction. The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project.

Temporary TAC emissions associated with DPM emissions from heavy construction equipment would occur during construction activities. According to OEHHA, health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 70-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 24 months), the proposed project and project-related offsite improvements would not result in a long-term (i.e., lifetime or 70-year) exposure as a result of construction activities. The project would be consistent with the applicable ICAPCD rules and regulations intended to reduce emissions from construction equipment and activities. The project would comply with regulatory control measures including the CARB Air Toxics Control Measure (ATCM) that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation that requires fleets to retire, replace, or repower of older, dirtier engines with newer emission-controlled models; compliance with these would minimize emissions of TACs during construction. Although sensitive receptors, residential uses, are located onsite and in the project vicinity, construction is relatively short-term, anticipated at 24 months and would result in an overall low level of DPM concentrations at the project site. Furthermore, compliance with the aforementioned CARB ATCM anti-idling measure further minimizes DPM emissions in the project site and project-related offsite improvements.

The project would also comply with best practices to limit exposure to Valley Fever. During excavation, grading, and other earth-moving activities, construction workers and nearby sensitive receptors have the potential to be exposed to Valley Fever. As this risk cannot be eliminated entirely, Valley Fever risk from construction-related dust from the project will be partially mitigated by implementation of fugitive dust control measures within ICAPCD Regulation VIII (Mitigation Measure AQ-2).

Additionally, traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO “hotspots.” CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels affecting sensitive receptors. Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Title 40 of the Code of Federal Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (Hot-Spot Analysis), states that "CO, PM_{10}, and $PM_{2.}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." Project construction would involve on-road vehicle trips from trucks and workers during construction. Construction activities would last approximately 24 months and would not require a project-level construction hotspot analysis.

Operations. CARB recommends that health risk assessments be conducted for substantial sources of operational DPM emissions (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions. The Project would not include any truck stop or warehouse distribution uses, and, as such, operations would generate only minor amounts of diesel emissions from mobile sources, such as delivery trucks and occasional maintenance. Project operations would not be considered a substantial source of diesel particulates. Furthermore, typical sources of hazardous TACs include industrial manufacturing processes, which the project is not.

With respect to the use of consumer products and architectural coatings, the project's land uses would not include installation of industrial-sized paint booths, emergency generators, or require extensive use of commercial or household cleaning products. Therefore, impacts operational impacts from TACs would be less than significant.

As previously mentioned, minimal periodic visits would be conducted for on-site equipment inspections, monitoring and testing. Therefore, since only limited vehicle trips are anticipated. The proposed project would not result in the creation of a CO hotspot and would not expose sensitive receptors to substantial pollutant concentrations associated with a CO hotspot.

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

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 typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project would not include any of these land uses. Therefore, impacts associated with odors during operations would be less than significant.

During construction, odors would come predominantly from construction equipment, which would cease immediately after construction is complete. Furthermore, the project would be required to comply with California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. As discussed, construction-related odors would be short-term and cease upon project completion. Therefore, impacts associated odors during construction would be less than significant.

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 unmitigated construction emissions for the project is provided in Table 3.4-8. 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-5 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

As discussed above, the proposed 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). Furthermore, implementation of Mitigation Measure AQ-2 would ensure construction equipment will be equipped with an engine designation of EPA Tier 4 engine. 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 CUPs, would be consistent with

applicable federal, state, regional, and local plans and policies. Further, implementation of Mitigation Measure AQ-3 would require additional dust suppression methods (such as water or chemical stabilization) on all unpaved roads associated with construction activities, Mitigation Measure AQ-4 requires development and implementation of a dust suppression management plan prior to any earthmoving activity, and Mitigation Measure AQ-5 limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Accordingly, as shown in Table 3.4-9, with implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant. The project would not result in any residual operational significant and unavoidable impacts with regards to air quality.

3.5 Biological Resources

This section identifies the biological and aquatic jurisdictional resources that may be impacted by the proposed project. The following identifies the existing biological and jurisdictional resources in the project area, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project. The information for this section is summarized from the *Biological Resources Technical Report* prepared by Dudek. This report is included in Appendix E of this EIR.

As part of the *Biological Resources Technical Report*, Dudek conducted a literature review, desktop 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.

3.5.1 Existing Conditions

Vegetation Communities and Land Cover Types

Five vegetation communities/land cover types were observed within the project site during the biological reconnaissance survey: general agriculture, stream channel, creosote bush scrub and allscale scrub shrubland, urban/developed, and disturbed habitat. The acreage of each vegetation community/land cover type within the project site is summarized in Table 3.5-1 and shown in Figure 3.5-1 and Figure 3.5-2. The majority of vegetation communities and land cover types mapped within the project site consisted of general agriculture and disturbed habitat.

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

Vegetation Community or Land Cover Type	Acres within Project Site[a]
General Agriculture	1,590.38
Stream Channel	5.80
Creosote Bush Scrub and Allscale Scrub Shrubland	80.97
Urban/Developed	5.81
Disturbed Habitat	165.86
Project Site Total	**1,848.82**

Source: Appendix E of this EIR

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

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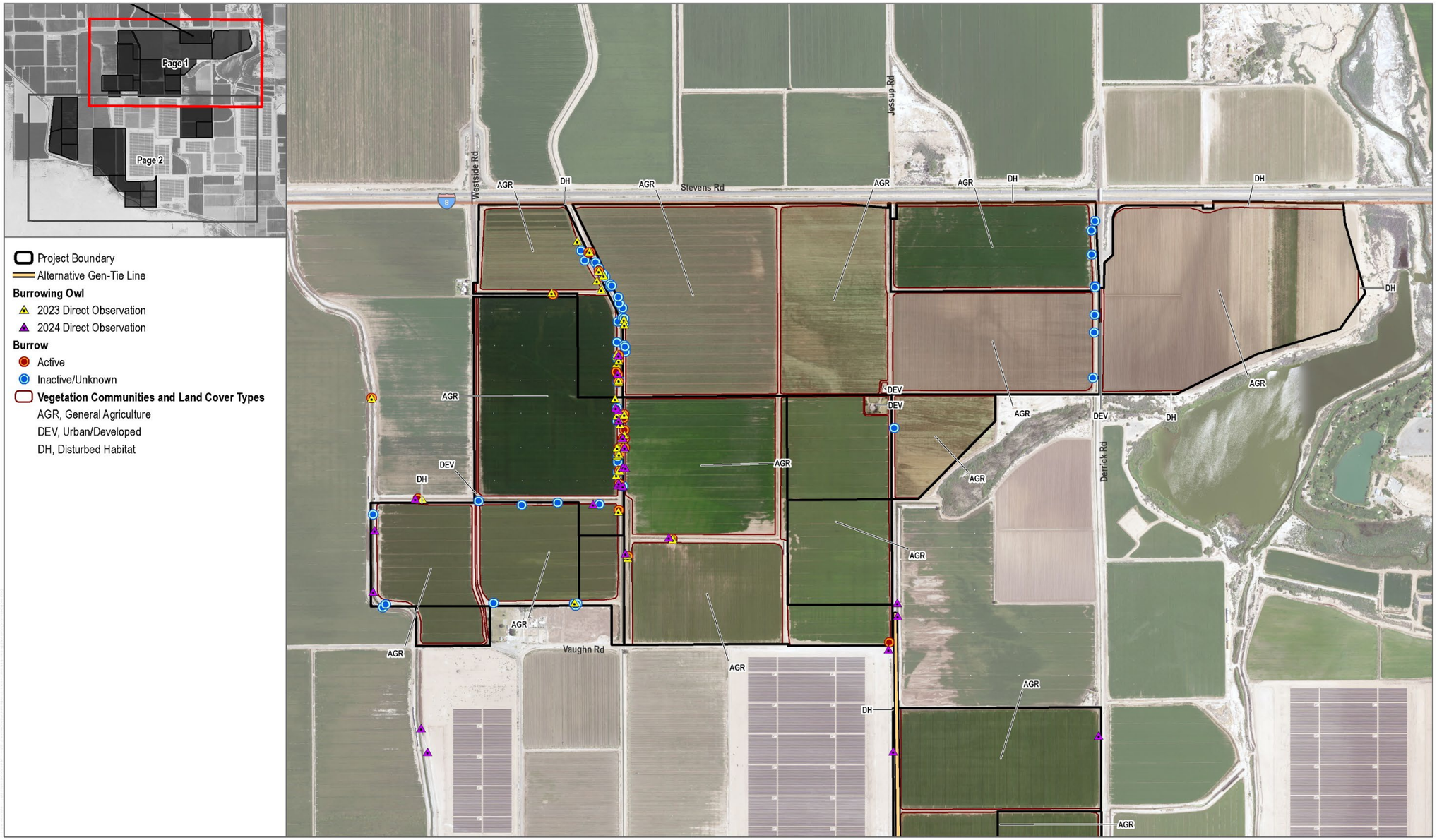
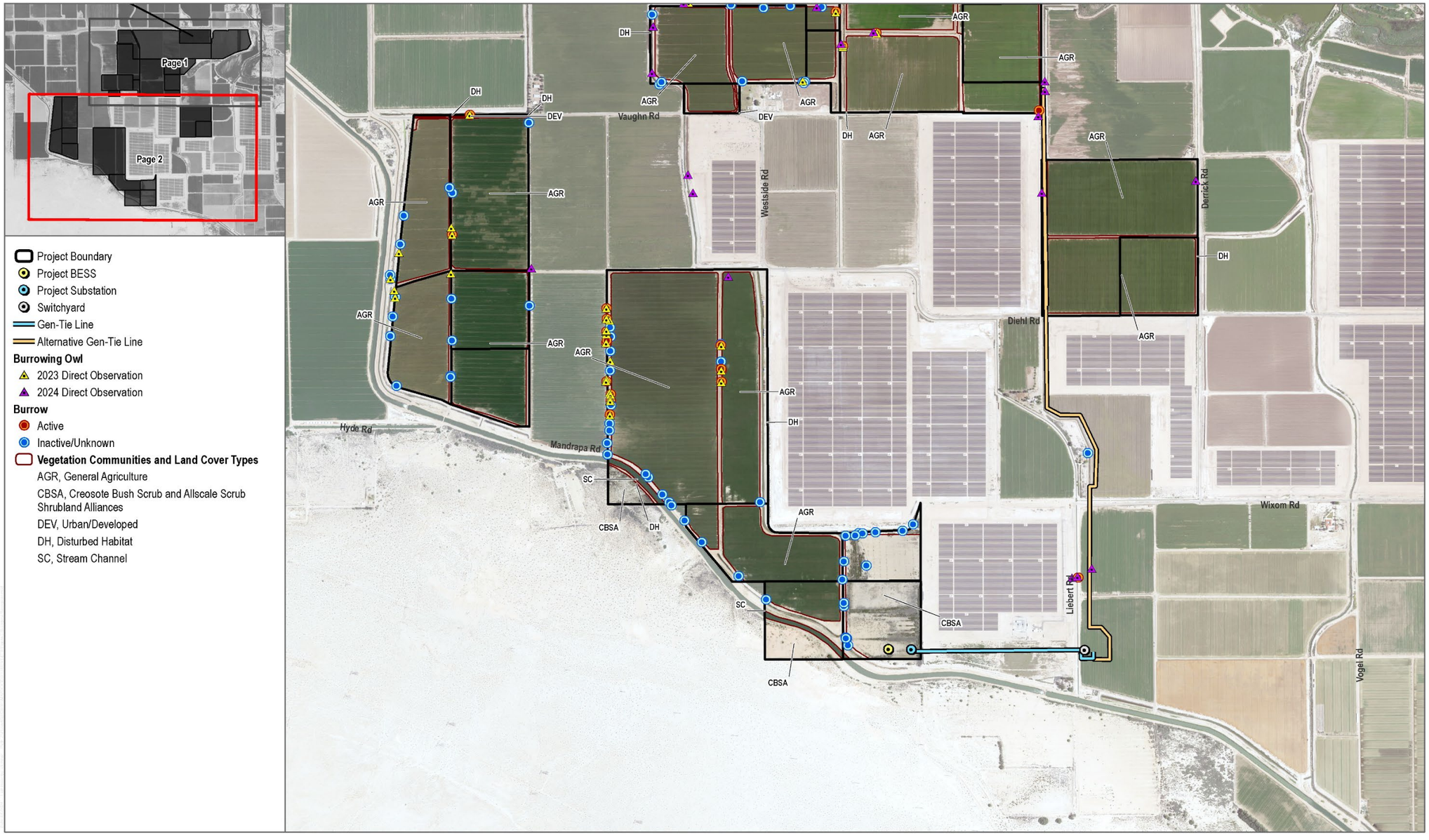
Figure 3.5-1. Vegetation Communities and Land Cover Types within the Project Site (Map 1 of 2)



Source: Appendix E of this EIR

Figure 3.5-2. Vegetation Communities and Land Cover Types within the Project Site (Map 2 of 2)



Source: Appendix E of this EIR

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

General Agriculture

Agricultural lands are an anthropogenic habitat and are not described by the California Department of Fish and Wildlife (CDFW) or by the California Native Plant Society (CNPS). Within the project site, agricultural lands consist of alfalfa (*Medicago sativa*), date palms (*Phoenix dactylifera*), Bermudagrass (*Cynodon dactylon*), and herbaceous vegetables, as well as several fallow fields. On-site farming practices include soil disking, plowing, herbicide application, and regular anthropogenic maintenance and disturbance associated with ongoing management actions. Compacted dirt roads and brow ditches are included within this land cover type (Appendix E of this EIR).

Stream Channel

Although not recognized by the Manual of California Vegetation, Online Edition, or the Natural Community List, stream channel is described by Oberbauer et al. (2008) as areas that exhibit ephemeral or intermittent flow and are barren or sparsely vegetated as a result of the scouring effects of floods or other anthropogenic causes. Within the project site, stream channel is characterized by irrigation ditches that convey flows throughout active agricultural lands. These areas include irrigation ditches that are unvegetated or vegetated with ruderal species such as giant reed (*Arundo donax*), nettleleaf goosefoot (*Chenopodium murale*), and asthmaweed (*Erigeron bonariensis*) (Appendix E of this EIR).

Creosote Bush Scrub and Allscale Scrub Shrubland Alliances

Desert scrub habitats generally consist of open areas with vegetative cover less than or equal to 50 percent populated with scattered shrubs and evergreen or deciduous species. Within the project site, creosote bush scrub and allscale scrub shrubland alliances are present in undeveloped areas that are absent of agricultural crops. These areas are primarily found around the southern project boundaries.

Creosote bush scrub shrubland alliance is dominated by creosote (*Larrea tridentata*), which serves as a canopy in most settings. Interspaces typically include saltbush (*Atriplex* spp.), goldenheads (*Acamptopappus* spp.), ragweed (*Ambrosia* spp.), woolly brickellbush (*Brickellia incana*), brittlebush (*Encelia farinose*), California jointfir (*Ephedra californica*), Nevada jointfir (*Ephedra nevadensis*), and Anderson wolfberry (*Lycium andersonii*). Emergent trees may be present at low cover, including honey mesquite (*Prosopis glandulosa*) or Joshua tree (*Yucca brevifolia*).

Allscale scrub shrubland alliance is dominated by allscale (*Atriplex polycarpa*). Interspaces typically include white bursage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), four-winged saltbush (*Atriplex canescens*), red brome (*Bromus rubens*), smallseed sandmat (*Chamaesyce polycarpa*), bladderpod (*Cleome isomeris*), alkali goldenbush (*Isocoma acradenia*), and creosote. Emergent trees may be present at low cover, including honey mesquite (Appendix E of this EIR).

Urban/Developed

Urban/developed areas contain a mixture of constructed materials and vegetation. Within the project site, urban/developed land takes the form of maintained roads for access to crops and irrigation canals, and residences.

Disturbed Habitat

Disturbed habitat are areas that have physical anthropogenic disturbance and, as a result, cannot be identified as a native or naturalized vegetation association. The existing vegetation is typically composed of non-native ornamental or exotic species. There can also be impacts from animal uses, grading, or repeated clearing for fuel management that leave the land incapable of providing a suitable or sustainable habitat for native species to persist (Appendix E of this EIR).

Sensitive Vegetation Communities

No vegetation communities considered sensitive by CDFW (Rank S1, S2, or S3) were mapped within the project site during the biological survey.

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 site. Special-status plants and animal species were evaluated for their potential to occur within the project site where impacts could potentially occur.

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 project site 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 Endangered Species Acts (ESA);
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code Sections 3511, 4700, 5050, or 5515; and
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Plant Species

Based on the results of the literature review and database searches, 19 special-status plant species were identified as occurring within the region. Due to the current conditions present on site, including the vegetation communities; soils; elevation ranges; previous known locations documented in the CNDDB, by CNPS, and/or by USFWS; and current disturbance levels, none have moderate or high potential to occur. Four of these species have a low potential to occur on the project site, which is generally not suitable due to the predominantly agricultural landscape. These four species are Abrams' spurge (*Euphorbia abramsiana*), Baja California ipomopsis (*Ipomopsis effusa*), brown turbans (*Malperia tenuis*), and hairy stickleaf (*Mentzelia hirsutissima*). The complete results of this potential to occur evaluation for special-status plants are included within Appendix E of this EIR. No special-status plant species were recorded within the project site. No USFWS designated critical habitat for a federally listed plant species occurs within 1 mile of the project site (Appendix E of this EIR).

Wildlife Species

Based on the results of the literature review and database searches, 23 special-status wildlife species were identified as occurring within the region. The western burrowing owl was recently named by the CDFW as a candidate for potential listing as a protected species under the California Endangered Species Act (CESA) and is present within the project site. Additionally, based on results of the literature review, database searches, and site conditions, one additional state-listed special-status species, California black rail (*Laterallus jamaicensis coturniculus*), was determined to have a low potential to occur within the irrigation ditches on the project site. All other listed species are not expected to occur.

One non-listed special-status species, northern harrier, was observed within the project site. One additional candidate for listing under the CESA, Crotch's bumble bee (*Bombus crotchii*), has a low potential to occur on the project site as a transient during foraging, but is not expected to nest.

The following eight non-listed special-status species were determined to have a low potential to occur, nest, or roost within the project site: Colorado Desert fringe-toed lizard (*Uma notata*), mountain plover (*Charadrius montanus*), California black rail, Yuma Ridgway's rail (*Rallus obsoletus yumanensis*), LeConte's thrasher (*Toxostoma lecontei*), Colorado Valley woodrat (*Neotoma albigula venusta*), Palm Springs pocket mouse (*Perognathus longimembris bangsi*), and American badger (*Taxidea taxus*).

The following three non-listed special-status bat species were determined to have a low potential to forage on the project site, but no potential to roost on the project site: western yellow bat (*Dasypterus xanthinus*), western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*).

Pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*) have yearlong ranges that encompass the project site.

The complete results of the potential-to-occur evaluation for special-status wildlife species are included as Appendix E of this EIR. No USFWS designated critical habitat for a federally listed wildlife species occurs within 1 mile of the project site (Appendix E of this EIR).

CALIFORNIA BLACK RAIL

California black rail is designated as state threatened and a fully protected species in California, and primarily occurs in California, Arizona, Baja California, and the Colorado River delta in Sonora. Suitable California black rail habitat generally includes salt marshes, freshwater marshes, and wet meadows. The species is typically identified in conjunction with common threesquare (*Schoenoplectus pungens*), arrowweed (*Pluchea sericea*), Fremont cottonwood (*Populus fremontii*), and seepwillow (*Baccharis salicifolia*). California black rails typically prey on small (less than 1 centimeter [0.39 inches]) invertebrates, chiefly insects, gleaned from marsh vegetation and mudflats; they also eat small seeds.

No California black rails were detected on the project site during the 2023 general biological survey. There are no CNDDB occurrences within the project site, and no focused surveys were performed. The closest records are from approximately 2.7 miles north of the project site in 2001. There is marginal suitable marsh habitat within some drainage canals that could potentially support foraging; however, the species is not expected to breed due to the limited suitable habitat on the project site (Appendix E of this EIR).

BURROWING OWL

Burrowing owl is a California Species of Special Concern and Bird of Conservation Concern, and was recently named by the CDFW as a candidate for potential listing as a protected species under the CESA. This species inhabits much of California. Burrowing owls prefer open, dry, annual or perennial grasslands; deserts; and scrublands characterized by low-growing vegetation. They usually nest in old burrows of ground squirrels, badgers, or other small mammals, although they may dig their own burrows in soft soil. Within disturbed or developed areas, burrowing owls may also nest in burrow surrogates (e.g., rock cavities, pipes, culverts, debris piles). Prey consists mostly of insects, small mammals, reptiles, birds, and carrion.

During the four focused survey passes in 2023 and 2024, approximately 89 burrowing owls were detected on the project site (Figure 3.5-1 and Figure 3.5-2). Burrowing owls were observed at 40 burrows, and an additional 143 burrows were found to have suitable habitat for the species. Most detections were concentrated along roads within the northern and southern areas of the project site. Due to the close proximity and high density of burrowing owls and repeated observations in several areas, it is likely that some of the same individuals were documented across several survey passes, and that the number of burrowing owls that reside on site may be fewer. Furthermore, due to the close proximity of many burrows, it is likely that there are several well-established burrow systems/complexes on site that the owls regularly use (Appendix E of this EIR).

NORTHERN HARRIER

Northern harrier is a California Species of Special Concern that inhabits much of California. Northern harriers use a wide variety of open habitats in California, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, floodplains, and marshes. The species also forages over coastal sage scrub and other open scrub communities. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrubsteppe, and riparian woodland. Undisturbed grasslands and wetlands that have dense vegetation have been documented to have higher nesting rates. Winter habitats similarly include a variety of open habitats dominated by herbaceous cover. Northern harrier populations are most concentrated in areas with low vegetation and occur from sea level to 3,048 meters above mean sea level.

During June 2023 burrowing owl surveys, one northern harrier was observed foraging in agricultural fields at the project site. The project site contains potentially suitable nesting habitat within fallow agricultural fields where human-caused disturbance is infrequent (Appendix E of this EIR).

Nesting Birds

The vegetation communities and open landscape within the project site provide potentially suitable habitat for commonly occurring nesting birds, including Anna's hummingbird (*Calypte anna*), Gambel's quail (*Callipepla gambelii*), and Abert's towhee (*Melozone aberti*). Although no nests were identified during the site visit, suitable nesting habitat exists within the project site and surrounding areas.

Critical Habitat

There is no USFWS designated critical habitat within 5 miles of the project site (Appendix E of this EIR).

Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal.

On a regional level, the Imperial Valley is an important component of the Pacific Flyway, which is a major north/south passage for migratory birds. The Salton Sea is known to serve as a stopover for birds migrating along this flyway, with as many as 400 different bird species having been recorded. The project site is located approximately 23 miles southeast of the Salton Sea.

Because the project site is primarily surrounded by, and includes extensive, active agriculture, the project site has limited value as a potential wildlife corridor or habitat linkage for most wildlife species. The irrigation canals are not large enough to support large populations of birds, amphibians, or other wildlife species associated with water and riparian vegetation; however, it could provide stopover habitat for migratory species. The agriculture fields provide habitat for migratory birds that forage in open fields. As such, the project site likely does not serve as an important wildlife corridor or habitat linkage for larger mammals or species that are limited to native habitats, but it does provide foraging or stopover habitat for migratory birds.

Jurisdictional Aquatic Resources

According to the project's Aquatic Resources Delineation Report (Appendix E of this EIR), the project site contains approximately 24.79 acres of potentially jurisdictional non-wetland waters/ditches and their associated culverts of the United States and state regulated by USACE, RWQCB, and CDFW. These non-wetland waters are characterized as IID irrigation canals that convey water throughout the Imperial Valley and are connected to a vast network of canals that source water from the Colorado River. Table 3.5-2 provides a summary of aquatic resources delineated within the project site (Appendix E of this EIR).

Many smaller, likely non-jurisdictional concrete canals with gates exist within and along the boundaries of agricultural fields on the project site. Although technically connected to potentially jurisdictional irrigation canals, they are constructed in uplands purely for the function of irrigating individual fields, and do not serve as critical conveyance pathways for regional irrigation like the larger, likely jurisdictional, irrigation canals.

During the field delineation, surface water was present in all of the non-wetland waters/ditches mapped within the project site; therefore, the waters onsite are likely considered relatively permanent waters. Based on site conditions observed in April 2023, the 24.74 acres of non-wetland waters/ditches and 0.05 acres of culverts connecting these non-wetland waters/ditches within the project site contain surface water and include, or have a continuous surface connection to, the Fern Canal, Fig Canal, and the Westside Main Ditch. These have a continuous surface connection to the Salton Sea, a traditional navigable water. Therefore, these features meet the definition of a 33 CFR, Section 328.3 (a)(3) waters. Accordingly, all non-wetland waters mapped in the review area may be subject to USACE regulation (Appendix E of this EIR).

All of the features described in Table 3.5-2 have also been identified as potential waters of the state. These features are subject to regulation by the RWQCB under the Porter-Cologne Water Quality Control Act and CDFW under California Fish and Game Code Section 1600.

Table 3.5-2. Aquatic Resource Summary for the Project Site

Feature Name	Cowardin[1]	OHWM Indicators	Location	Acres/Linear Feet
Non-Wetland Waters (Below OHWM)				
Irrigation Ditch[2]	R4SBCx	BBS, occasional CVS and CVC	Throughout project site	24.74/71,760
Culvert	N/A	N/A	Throughout project site	0.05/1,059

Source: Appendix E of this EIR

OHWM = ordinary high-water mark; R4SBCx = Riverine, Intermittent, Streambed, Seasonally Flooded, Excavated; BBS = break in bank slope; CVS = change in vegetation species; CVC = change in vegetation cover

[1] Pursuant to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979).

[2] Feature likely classified as seasonal "relatively permanent water" that flows for at least 3 months of the year, based on conditions observed during the delineation.

3.5.2 Regulatory Setting

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

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most listed plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain listed marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The Migratory Bird Treaty Act protects more than 800 species of birds and prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.).

Section 404 Permit (Clean Water Act)

The Clean Water Act (CWA) is the major federal legislation governing water quality, providing guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. CWA Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands.

Wetlands and Other Waters of the United States

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient

to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high-water mark (OHWM), which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

State

California Endangered Species Act

CDFW administers the California Endangered Species Act (CESA), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

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

The California FGC Section 1600 et. seq. requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake."

California Fish and Game Code Sections 3503, 3503.5, and 3513

Under the California Fish and Game Code, CDFW provides protection from "take" for a variety of species. Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code provide that designated fully protected species may not be taken or possessed without a permit. Incidental take of these species is not authorized by law. Pursuant to Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey, or to take, possess, or destroy any nest or eggs of such birds.

California Department of Fish and Wildlife Streambed and Riparian Habitat

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. Under California Fish and Game Code Section 1602, a notification to CDFW is required prior to beginning any project activity that may (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. CDFW requires a Lake and Streambed Alternation Agreement when one of the above project activities may substantially adversely affect fish and wildlife resources. Therefore, wetlands are not regulated by CDFW under California Fish and Game Code Section 1602 unless the wetlands are part of a river, stream, or lake.

State and Regional Water Quality Control Boards

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water

Resources Control Board develops statewide water quality plans, and the RWQCBs develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Act include isolated waters that are not regulated by USACE. RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a "water of the state" (California Water Code Section 13260[a]). Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050[e]). Developments with impacts on jurisdictional waters must demonstrate compliance with the goals of the Porter–Cologne Act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a CWA Section 401 Certification. If a CWA Section 404 permit is not required for a project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Act.

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 resources. 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. Although special-status wildlife species were observed and have potential to occur within the project site, implementation of Mitigation Measures BIO-1 through BIO-7 would reduce potential impacts on these species to a level that is 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. As described in Chapter 2, Project Description, implementation of the project would require the approval of CUPs by the County to allow for the construction and operation of the project.
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 proposed project's potential impacts on biological resources. Although special-status wildlife species were observed and have potential to occur within the project site, implementation of Mitigation Measures BIO-1 through BIO-7 would reduce potential impacts on these species to a level that is 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 2016
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 the respective Project's 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

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?

Construction

Special-Status Plants

No special-status plant species were identified within the project site. There are small pockets of creosote bush scrub and allscale scrub shrubland, but, overall, the project site lacks suitable habitat or site characteristics required for special-status plant species; thus, special-status plant species are either not expected to occur or have a low potential to occur within the project site (Appendix E of this EIR). As such, there would be no anticipated direct and/or indirect impacts to special-status plant species.

Special-Status Wildlife

As described above, burrowing owls and one northern harrier were observed on the project site during biological surveys conducted in 2023 and 2024. Potential impacts are described below.

BURROWING OWL

Burrowing owls and active burrow sites were recorded on the project site during the 2023 and 2024 burrowing owl surveys (Figure 3.5-1 and Figure 3.5-2). Potential direct impacts to burrowing owls, including unintentional clearing or trampling of occupied habitat and/or destruction of burrowing owl dens, eggs, young, or adults, would be significant. However, construction-related direct impacts to burrowing owls would be reduced to a level less than significant with implementation of Mitigation Measures BIO-1 through BIO-4.

Mitigation Measure BIO-1 requires pre-construction clearance surveys to be conducted within 14 days prior to the start of ground disturbance by qualified and agency-approved biologists to determine the presence or absence of this species within the project footprint. These surveys are necessary because burrowing owls may not use the same burrow every year. The identification of any active burrows would result in the establishment of appropriate buffers and avoidance/minimization of impacts to burrowing owls. Mitigation Measure BIO-2 establishes compensation for unavoidable direct impacts

to burrowing owls. Mitigation Measure BIO-3 establishes an education program to provide information on burrowing owl biology, regulations, protection measures, and reporting procedures. Mitigation Measure BIO-4 requires evaluation and implementation of best measures to reduce burrowing owl mortality along access roads and establishment of a speed limit.

Potential short-term, indirect impacts to burrowing owls include generation of fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat; increased human presence, which can disrupt daily activities of wildlife and cause them to leave an area; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery. Given that the existing condition of the project site is active agricultural lands, burrowing owls present within the project site are likely accustomed to increased human presence and noise and vibration. Construction-related indirect impacts to burrowing owls would be reduced to a level less than significant with implementation of Mitigation Measure BIO-1. Mitigation Measure BIO-1 establishes measures at active burrows, including passive relocation, shelter in place (using hay bales to shelter the burrow from construction activities), and abandoned burrow destruction.

CALIFORNIA BLACK RAIL AND YUMA RIDGEWAY'S RAIL

California black rail and Yuma Ridgeway's rail were not recorded during the 2023 reconnaissance survey; however, marginally suitable habitat occurs in small quantities within the irrigation canals on the project site. Focused surveys were not conducted within the project site; therefore, habitat suitability is conservatively based on the presence of a small amount of aquatic vegetation within the irrigation canals. Potential direct impacts to California black rail or Yuma Ridgeway's rail, including destruction of nests, eggs, and/or young if one or both species nest on site, would be considered significant. Implementation of Mitigation Measure BIO-5 would require nesting bird pre-construction surveys to be completed if construction occurs during the nesting bird season (February 1 through September 15). These surveys would identify any California black rails and Yuma Ridgeway's rails within the project site, establish appropriate buffers, and avoid impacts to California black rails and Yuma Ridgeway's rails. Construction-related direct impacts to California black rails and Yuma Ridgeway's rails would be reduced to a level less than significant with implementation of Mitigation Measure BIO-5.

Potential short-term, indirect impacts to California black rails and Yuma Ridgeway's rails include generation of fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat; increased human presence, which can disrupt daily activities of wildlife and cause them to leave an area; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery. Given that the existing condition of the project site is active agricultural lands, California black rails and Yuma Ridgeway's rails potentially present are likely accustomed to increased human presence and noise and vibration. Implementation of Mitigation Measure BIO-3 would reduce potential impacts to a level less than significant.

NORTHERN HARRIER

One northern harrier was recorded foraging during the June 2023 burrowing owl survey. Potential direct impacts to northern harriers, including destruction of nests, eggs, and/or young if they nest on site, would be significant. The proposed project also has the potential to impact the species' migratory movement. The agriculture fields on the project site provide foraging habitat for northern harrier, and the migratory movements of the species may be adversely affected by construction and presence of

construction on the project site. However, implementation of Mitigation Measure BIO-6 would require a qualified biologist to conduct a pre-construction bird survey within and adjacent to the project area. The survey will account for breeding and nesting birds, as wells other bird activity, such as foraging, and for behavior possibly caused by project activities, such as agitation, stress, and/or nest abandonment. The survey would identify any northern harriers within the project site, establish appropriate buffers, and avoid impacts to northern harriers. Construction-related direct impacts to northern harriers would be reduced to a level less than significant with incorporation of Mitigation Measure BIO-6.

Potential short-term, indirect impacts to northern harriers include generation of fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat; increased human presence, which can disrupt daily activities of wildlife and cause them to leave an area; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery. Given that the existing condition of the project site is active agricultural lands, northern harriers potentially present within the project site are likely accustomed to increased human presence and noise and vibration. Implementation of Mitigation Measure BIO-3 would reduce potential impacts to a level less than significant.

NESTING BIRDS

The project site has the potential to support avian nests, which are protected under the Migratory Bird Treaty Act and the California Fish and Game Code (Section 3503), under which it is unlawful to “take, possess, or needlessly destroy” avian nests or eggs. Thus, potentially significant impacts could occur if vegetation clearing is undertaken during the breeding season (February 1 through September 15). Removal of habitat would occur outside of the breeding season. If vegetation removal cannot occur outside of the breeding season, Mitigation Measure BIO-5 would be implemented to require a pre-construction nesting bird survey, thus addressing direct and indirect impacts to nesting birds. Construction-related direct impacts to nesting birds would be reduced to a level less than significant with implementation of Mitigation Measure BIO-5.

Potential short-term, indirect impacts to nesting birds include generation of fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat; increased human presence, which can disrupt daily activities of wildlife and cause them to leave an area; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery. Given that the existing condition of the project site is active agricultural lands, nesting birds potentially present within the project site are likely accustomed to increased human presence and noise and vibration. Implementation of Mitigation Measure BIO-3 would reduce potential impacts to a level less than significant.

BATS

The following non-listed special-status bat species were determined to have a low potential to forage on the project site: western yellow bat, western mastiff bat, and pocketed free-tailed bat. In addition, pallid bat and Townsend’s big-eared bat have yearlong ranges that encompass the project site. The project site provides foraging habitat for these bat species, and the movements of these species may be adversely affected by construction and presence of construction on the project site. Implementation of Mitigation Measure BIO-7, which requires a focused bat survey to be conducted for all suitable

roosting and foraging habitat for local or migratory bat ,would reduce potential impacts on bat species to a level less than significant.

Operation

Potential impacts during project operation could result from lighting, noise, dust, increased human activity, and collision hazards. These impacts are described below.

Lighting

All permanent lighting would be of low intensity and in compliance with local, applicable regulations. Lighting would be directed away from the public right-of-way and pointed inward toward the solar energy facility and may utilize directional hoods or shades as needed to reduce light from shining into the adjacent habitat and disturbing birds or exposing them to increased visibility by predators. In addition, any lighting not required daily for security purposes would have motion sensor or temporary use capabilities. As such, no significant impact due to lighting is anticipated to occur to migratory birds because the vast majority of the light would be directed onto the facility, not onto adjacent habitat, and because the lights would not be on continuously.

Noise

The project site is actively farmed and there are solar facilities operating adjacent to the project site. As described in Section 3.12 Noise and Vibration of this EIR, no equipment or components are anticipated to produce noise that would exceed ambient noise in the vicinity. No significant impact due to noise would occur to migratory birds because their movement and habitat would not be substantially affected.

Dust

Dust from vehicles during project operation could impact suitable habitat for special-status species. This potential impact is considered significant. However, no equipment or components are anticipated to produce dust that would exceed what currently exists in the vicinity. Furthermore, with implementation of Mitigation Measure BIO-4, which requires reduced speed limits, potential operational impacts from dust would be reduced to a level less than significant.

Increased Human Activity

Increased human activity can deter wildlife from using habitat areas near the project site and increase the potential for vehicle collisions. This potential impact is considered significant. However, Mitigation Measure BIO-3 provides for worker training for operational staff to minimize impacts associated with increased human activity. Mitigation Measure BIO-4 imposes speed limits on site and limits allowed activities to reduce effects from increased human activity. Therefore, with implementation of Mitigation Measures BIO-4 and BIO-4, impacts would be reduced to a level less than significant.

Collision Hazards

The project site is approximately 23 miles south of the Salton Sea, a major stopover location for migratory birds. The project could potentially increase the risk of collisions due to sky reflection (or “pseudo-lake effect”). Although avian collisions with towers and structures have been well documented, there are few published papers that study the possibility that large areas of solar PV panels in the desert environment may mimic water bodies and inadvertently attract migrating or

dispersing wetland bird species. There is currently insufficient research to assess the magnitude or likely risk associated with collisions with solar fields. The solar PV modules would be coated to be non-reflective and are designed to be highly absorptive of all light that strikes their glass surfaces. Based on the evidence available—non-reflective design of the solar panels, typical migration patterns, comparatively few documented deaths—glare and pseudo-lake effect are not expected to result in significant impacts to migrating or local avian species.

Mitigation Measure(s)

BIO-1 **Burrowing Owl Mitigation.** Burrowing owl currently identified on site shall be mitigated per the guidance of the Staff Report on Burrowing Owl Mitigation (CDFG 2012) such that (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals.

Focused Burrowing Owl Surveys

To avoid construction-level impacts to unidentified burrowing owls on-site, qualified biologists shall conduct focused burrowing owl surveys during the breeding and non-breeding season in accordance with the California Department of Fish and Wildlife's (CDFW) 2012 Staff Report on Burrowing Owl Mitigation. The survey shall cover the project site and a 500-foot buffer, where legally accessible. The project applicant shall coordinate with CDFW in the preparation of a Burrowing Owl Protection and Mitigation Plan to allow commencement of disturbance activities on site. A pre-construction survey shall be conducted within 14 days prior to the start of construction activities.

Pre-Construction Survey and Avoidance Measures

Depending on the project activity type and associated disturbance, an avoidance buffer distance of 50 meters (165 feet) to 100 meters (330 feet) during the non-breeding season (September through January) and 100 meters (330 feet) t0 250 meters (825 feet) during the breeding season (February through August) shall be maintained between active burrows and construction activities. A Qualified Biologist (biologist who meets the requirements set forth in CDFW's 2012 Staff Report on Burrowing Owl Mitigation and approved by CDFW) shall monitor the burrowing owls for any sign of distress and adjust the buffers as necessary to ensure no take occurs.

If construction is to begin during the breeding season, mitigation measures shall be implemented prior to February 1 to discourage nesting by burrowing owls within the Project footprint. As construction continues, any area where owls are sighted shall be subject to frequent surveys by the qualified biologist for burrows before the breeding season begins so that owls can be properly relocated before nesting occurs.

Pre-construction take avoidance surveys for this species shall be conducted within 14 days prior to the start of ground disturbance and 24 hours prior to construction to determine the presence or absence of this species within the project footprint. A report shall be submitted by a qualified and agency-approved biologist. The project footprint

shall be clearly demarcated in the field by the project engineers and biologist prior to the commencement of the pre-construction take avoidance surveys. The surveys shall follow the protocols provided in the Burrowing Owl Survey Protocol and Mitigation Guidelines, prepared by the California Burrowing Owl Consortium, and following the guidance of the Staff Report on Burrowing Owl Mitigation.

Burrowing Owl Protection and Mitigation Plan

If active burrows are present within the project footprint and avoidance is infeasible, the following mitigation measures shall be implemented. If approved by CDFW through the Burrowing Owl Protection and Mitigation Plan (described below), passive relocation methods are to be used by the qualified biologist to move the owls out of the impact zone. Passive relocation shall only be done in the non-breeding season, where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, in accordance with the guidelines found in the Imperial Irrigation District Artificial Burrow Installation Manual. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow but will exclude any animals from re-entering the burrow. If burrowing owls exhibit sign of stress in attempting to re-enter the burrow, the one-way-door shall be removed to prevent take of the individual. A period of at least 1 week is required after the relocation effort to allow the birds to leave the impacted area before construction of the area can begin. Only burrows that will be directly impacted by the project shall then be excavated and filled in to prevent their reuse. Off-site “replacement burrow site(s)” must consist of a minimum of two suitable, unoccupied burrows for every burrowing owl or pair to be passively relocated.

As the project construction schedule and details are finalized, a qualified biologist shall prepare a Burrowing Owl Protection and Mitigation Plan that will detail the approved, site-specific methodology proposed to avoid, minimize and mitigate impacts on this species. Passive relocation, destruction of burrows, construction of artificial burrows, and a Forage Habitat Plan shall only be completed upon prior approval by and in cooperation with CDFW. The Burrowing Owl Protection and Mitigation Plan shall include success criteria, remedial measures, active monitoring, and an annual report to CDFW, and shall be funded by the project applicant.

Incidental Take Authorization

The project applicant shall seek incidental take authorization from CDFW if incidental “take” of burrowing owl as defined by CDFG Code 86 is determined to be unavoidable and the species is a candidate, threatened or endangered species under CESA at such time.

If incidental take authorization from CDFW is required, the measures listed in Mitigation Measure BIO-1 above may be superseded by the incidental take authorization permit requirements, if/as applicable.

BIO-2 **Burrowing Owl Habitat Compensation.** The California Department of Fish and Wildlife’s 2012 Staff Report on Burrowing Owl Mitigation requires the acquisition and protection of replacement foraging habitat per pair or unpaired resident bird to offset the loss of foraging and burrow habitat on the project site.

Mitigation shall include off-site preservation of the required amount of foraging habitat through a CDFW-approved conservation easement, or an in-lieu fee in an amount approved by CDFW that is sufficient to acquire such conservation easements, or some combination of the two.

If incidental take authorization from CDFW is required, the measures listed in Mitigation Measure BIO-2 above may be superseded by the incidental take authorization permit requirements, if/as applicable.

BIO-3 **Worker Awareness Program and Ongoing Training.** Prior to project initiation, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Wallet-sized cards summarizing this information shall be provided to all construction, operation, and maintenance personnel. The education program shall include the following aspects:

- Biology and status of burrowing owl.
- California Department of Fish and Wildlife/U.S. Fish and Wildlife Service regulations.
- Protection measures designed to reduce potential impacts on the species.
- The function of flagging designated authorized work areas.
- Reporting procedures to be used if a burrowing owl (dead, alive, injured) is encountered in the field.

All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.

BIO-4 **Speed Limit.** During construction, the designated biologist or biological monitor(s) shall evaluate and implement best measures to reduce burrowing owl mortality along access roads. A speed limit of 15 miles per hour shall be enforced on all access roads. In addition, all vehicles required for operations and maintenance must remain on designated access/maintenance roads.

BIO-5 **Migratory Birds and Other Sensitive Non-Migratory Bird Species.** To reduce the potential indirect impact on migratory birds, bats, and raptors, an Avian and Bat Protection Plan (ABPP) shall be prepared following the U.S. Fish and Wildlife Service's guidelines and implemented by the project applicant. This ABPP shall outline conservation measures for construction, operation, and maintenance activities that might reduce potential impacts on bird populations and shall be developed by the project applicant in conjunction with the County of Imperial.

Construction conservation measures to be incorporated into the ABPP shall include the following:

- Minimizing disturbance to vegetation to the maximum extent practicable.
- Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, an approved biologist shall conduct a pre-

construction clearance survey for nesting birds in suitable nesting habitat that occurs within the project footprint. Pre-construction nesting surveys will identify any active migratory bird (and other sensitive non-migratory bird) nests. Direct impact on any active migratory bird nest shall be avoided until a qualified biologist determines that the fledglings are independent of the nest.

- Minimizing wildfire potential.
- Minimizing activities that attract prey and predators.
- Controlling non-native plants.

Operations and maintenance conservation measures to be incorporated into the ABPP shall include the following:

- Incorporating the Avian Powerline Interaction Committee's 2012 guidelines for overhead utilities to minimize avian collisions with transmission facilities.
- Minimizing noise.
- Minimizing use of outdoor lighting.

BIO-6 **Pre-Construction Bird Surveys and Nest Avoidance.** Vegetation clearing, initial grading and construction within the project site shall take place outside 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).

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 qualified avian biologist shall conduct a pre-construction nesting bird survey prior to project-related disturbance within and adjacent to the project area. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nesting locations and nesting behavior (including but not limited to copulation, carrying food or nesting materials, nest building, agitation, aggressive interaction, feigning injury, or distraction displays). The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures.

If any active nest is identified, the biologist shall establish an appropriately sized no-work buffer zone around the nest, which will be based upon the biologist's best professional judgment, the birds' displayed behavior (agitation or stress), the nesting species, it's sensitivity to disturbance, nesting stage and expected types, and the intensity and duration of disturbance. The no-work buffer zone shall be clearly marked in a way that does not alert predators. No construction activity shall occur within any no-work buffer zone until a qualified avian biologist determines that the young birds have successfully fledged and the best is deemed active.

BIO-7 **Focused Bat Surveys and Bat Management Plan.** A focused bat survey shall be conducted for all suitable roosting and foraging habitat for local or migratory bat species known to the project area, including special-status species, found within

the project site shall be surveyed prior to initial site clearing activities. The surveys shall be completed by a qualified bat biologist whose resume shall be reviewed and approved by CDFW. Surveys shall include determination of the approximate size of the colony(s) and species present. At the discretion of the qualified bat biologist, the features being used may be examined using appropriate methods to avoid roost and/or young abandonment due to disturbance. The surveys shall include a combination of nighttime emergence counts and acoustic techniques (full spectrum bat acoustic detectors) appropriate for the roosting habitat and time of year, visual and aural surveys (observation during foraging period), and inspection for suitable habitat and bat sign (e.g. guano). The level of survey effort shall be reassessed based on initial survey findings.

If roosting bats, of any status, are found during the surveys, the bats and roosts shall be avoided to the maximum extent practicable with consideration of the most disturbing project activities and their effect. A Bat Management Plan prepared by the qualified bat biologist identifying situation-specific and species-specific avoidance and minimization measures to reduce impacts to roosting and foraging bats shall be prepared for CDFW's review, approval, and implementation prior to the commencement of initial site clearing activities. The Bat Management Plan shall include, as appropriate to the findings of the surveys and roosting habitat affected, a construction schedule to avoid roosting season, spatial and temporal avoidance measures, no-disturbance buffers, passive exclusion of bats outside of the maternity season (if necessary), and identification of species-specific replacement or alternative habitat to mitigate for permanent maternity roosting habitat loss. If roosts cannot be avoided or it is determined that construction activities will cause roost abandonment, a mitigation plan addressing exclusion and passive relocation procedures and impact compensation will be developed. The mitigation plan will be developed in consultation with CDFW and the qualified bat biologist. Roost and foraging habitat shall be replaced in-kind prior to any exclusion. Any exclusion and passive relocation efforts shall avoid periods of sensitive activity (e.g. hibernation or maternity season) and may require several seasons for bats to discover alternative roosting sites.

Significance after Mitigation

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

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?

No special-status vegetation communities occur within the project site. Thus, implementation of the proposed project would not result in direct or indirect impacts to special-status vegetation communities. No impact would occur.

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?

According to the project's Aquatic Resources Delineation Report (Appendix E of this EIR), the project site contains approximately 24.79 acres of potentially jurisdictional non-wetland waters/ditches and their associated culverts of the United States and state regulated by USACE, RWQCB, and CDFW. While it is assumed that the project would avoid all direct impacts to IID irrigation canals, the smaller canals along the boundaries of agricultural fields on the project site may be impacted. Potential impacts to jurisdictional waters would be significant. The project is expected to comply with the relevant laws that apply to potentially jurisdictional waters and notify the respective agencies of the impacts to determine the jurisdictional status and the need for permits to be acquired for impacts. If permits are required, avoidance and minimization measures would be included in the conditions of the permits and shall be adhered to. All poles associated with the collector areas would be sited outside of non-wetland waters. Mitigation Measure BIO-8 requires the project applicant or its designee to obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement. If impacts to jurisdictional waters were to occur, implementation of Mitigation Measure BIO-8 would reduce impacts to less than significant.

Potential short-term, indirect impacts to jurisdictional waters could include generation of fugitive dust and the introduction of chemical pollutants. Mitigation Measure BIO-3 would further ensure no impacts to jurisdictional waters. With implementation of these measures, potential short-term indirect impacts from construction activities would be less than significant.

Mitigation Measure(s)

Implement Mitigation Measure BIO-3.

BIO-8 **Federal and State Agency Permits.** Prior to impacts occurring to USACE, RWQCB, and CDFW (collectively, the Resource Agencies) jurisdictional aquatic resources, the project applicant or its designee shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement. There must be no net loss of waters or wetlands, and any impacts to wetlands shall be mitigated at a minimum ratio of 1:1 (through creation, restoration and/or enhancement). A suitable mitigation site shall be selected and approved by the Resource Agencies during the permitting process.

Significance after Mitigation

The smaller canals along the boundaries of agricultural fields on the project site may be impacted. Potential impacts to jurisdictional waters would be significant. However, implementation of Mitigation Measures BIO-3 and BIO-8 would reduce potential impacts on jurisdictional waters to a level less than significant.

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?

The project is not likely to have direct or indirect impacts on movement of any native resident or migratory fish or wildlife species regionally or locally. The project site is approximately 23 miles southeast of the Salton Sea and would not affect its use by migratory birds. Locally, the project site is primarily surrounded by and includes extensive historical and present-day agricultural practices. As such, the project site has limited value as a potential wildlife corridor or habitat linkage for fish and wildlife species, and likely does not serve as an important wildlife corridor. Impacts to wildlife movement would be less than significant.

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?

As demonstrated in Table 3.5-3 and discussed further in Section 3.11, Land Use Planning, with approval of CUPs and General Plan Amendment, the project would be consistent with the 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.

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?

No adopted Habitat Conservation Plan area overlaps with the project site. Thus, implementation of the proposed project would not result in direct or indirect impacts to any Habitat Conservation Plan.

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, raptors, bats, and jurisdictional resources. This is a potentially significant impact; however, implementation of Mitigation Measures BIO-1 through BIO-8 at the time of decommissioning would reduce potential impacts to a level less than significant.

Residual

The proposed project would not impact sensitive vegetation communities, state or federally-protected wetlands, would not conflict with any local policies or ordinances protecting biological resources and would 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-8, potential impacts on special-status species, nesting birds, raptors, bats, and jurisdictional resources would be reduced to a level less than significant. Therefore, the project would not result in residual significant and unmitigable impacts related to biological resources.

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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 from this section is summarized from the *Cultural Resources Inventory Report* and *Built Environment Inventory and Evaluation Report* prepared by Dudek. These reports are included in Appendix F1 and F2 of this EIR, respectively.

The Phase I cultural resources inventory included a records search, literature review, and pedestrian survey. In addition to the Phase I cultural resources inventory, Dudek prepared the Built Environment Inventory and Evaluation Report which identifies previously identified and unidentified build environment cultural resources within or adjacent to the project site.

3.6.1 Existing Conditions

Cultural Setting

The project site is within California's Colorado Desert, a small part of the larger Sonoran Desert. The Colorado Desert encompasses Imperial County, and includes parts of San Diego County, Riverside County, and a small section of San Bernardino County, California. The cultural setting for the Colorado Desert is described in detail in the *Cultural Resources Inventory Report* (Appendix F of this EIR) prepared for the project and includes the following time periods: Late Pleistocene, Terminal Pleistocene-Very Early Holocene, Mid-Holocene, and Late Holocene. The ethnohistoric and historic periods are also described in detail in the *Cultural Resources Inventory Report* (Appendix F1 of this EIR) prepared for the project.

Records Search

A records search dated March 31, 2023 was obtained from the South Coastal Information Center (SCIC) at San Diego State University. The records search provided information on all documented cultural resources and previous archaeological investigations within the 1-mile record search radius. Dudek returned to the SCIC in June 2023 to retrieve three resource reports that were not recovered from the March 31, 2023 records search. Resources consulted during the records search conducted by the SCIC included the National Register of Historic Places (NRHP), California Historical Landmarks, California Points of Historical Interest, and the California Register of Historical Resources (CRHR) Inventory. Results of the records search and additional research are detailed below.

Previously Conducted Cultural Resources Studies

Fifty-one (51) cultural resources studies have been previously conducted within a one-mile radius of the project site. Seven of those studies intersect the project site (see Table 1 of Appendix F of this EIR). All seven studies were conducted between 1979 to 2006 and include two Class II cultural resources inventories, two archaeological assessments, two environmental studies, and a management plan. Although approximately 30 percent of the project site overlaps with previous study areas, none of the studies are considered adequate according to the Secretary of Interior's standards and guidelines for a cultural resources inventory (Appendix F1 of this EIR).

Previously Recorded Cultural 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.

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 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

The SCIC records search indicates that seven previously recorded cultural resources are located within the project site (Table 3.6-1). Table 3.6-1 provides brief descriptions and CRHR/NRHP eligibility for each resource identified within the project site, based on the SCIC records search.

The seven resources consist of an historic wagon road (P-13-003403), four canal/water conveyance systems for agricultural use (P-13-012688, P-13-12689, P-13-12693, and P-13-014975), and two single-family residences (P-13-013758 and P-13-014263). The recorded sections of three canal/water conveyance systems (P-13-012689, P-13-012693 and P-13-014975), and the two single-family residences have all been recommended not eligible for listing on the CRHR and the NRHP. The historic wagon road and portions of one water-conveyance system (P-13-012688) have not been formally evaluated for listing on the CRHP and the NRHP. The SCIC records search also indicates that an additional 18 cultural resources have been recorded within the one-mile radius of the project site (Appendix F1 of this EIR).

Table 3.6-1. Previously Recorded Cultural Resources Within 1-mile of the Project Site

Primary Number	Trinomial	Age	Description	CRHR/NRHP Status
Within the Project Site				
P-13-003403	CA-IMP-3403/H	Historic	Wagon Road from Fort Yuma to Warner's Ranch	Unevaluated
P-13-012688	--	Historic	Dixie Drains 2, 3, and 4 and Dixie Lateral 1	Dixie Drain 3 and Lateral 1 recommended not eligible; Dixie Drains 2 and 4 unevaluated
P-13-012689	--	Historic	Fern Canal and Drain System	Recommended not eligible
P-13-012693	--	Historic	Fig Canal	Recommended not eligible
P-13-013758	CA-IMP-11759/H	Historic	1651 Westside Road	Recommended not eligible
P-13-014263	--	Historic	Preece Residence	Recommended not eligible
P-13-014975	--	Historic	Wixom Drain	Recommended not eligible
Not within the Project Site				
P-13-014264	--	Historic	HP15; Westside Elementary School	Recommended not eligible
P-13-014265	--	Historic	HP3; Multiple Residence Compound	Recommended not eligible
P-13-014266	--	Historic	HP2; Black Residence	Recommended not eligible
P-13-017714	CA-IMP-13040	Prehistoric	AP2, AP11; Lithic scatter and hearth	No formal recommendation
P-13-017729	--	Prehistoric	Lithic debitage isolate	Not eligible
P-13-017730	--	Prehistoric	Lithic debitage isolate	Not eligible
P-13-017731	--	Prehistoric	Lithic utilized flake tool isolate	Not eligible
P-13-017732	--	Prehistoric	Lithic debitage isolate	Not eligible
P-13-017733	--	Prehistoric	Lithic assayed cobble isolate	Not eligible

P-13-017734	--	Prehistoric	Lithic debitage isolate	Not eligible
P-13-017735	--	Prehistoric	Lithic debitage isolate	Not eligible
P-13-017736	--	Prehistoric	Lithic retouched flake tool	Not eligible
P-13-017737	--	Prehistoric	Lithic core fragment and debitage isolate	Not eligible
P-177740	--	Prehistoric	Colorado Buff Ceramic body fragment	Not eligible

Source: Appendix F1 of this EIR

P-13-003403/CA-IMP-3403/H (WAGON ROAD FROM FORT YUMA TO WARNER'S RANCH)

P-13-003403 is a wagon road that historically connected Fort Yuma in Imperial County to Warner's Ranch in San Diego County. It was first recorded in 1956. The historic placement of P-13-003403 crosses the project site on a roughly east to west axis, although there is no current evidence to indicate this resource still exists with the integrity it was first recorded.

P-13-012688 (DIXIE DRAINS 2, 3, AND 4, AND DIXIE LATERAL 1)

P-13-012688 consists of Dixie Drains 2, 3, and 4 and Dixie Lateral 1. Dixie Drain 3 was first recorded in 2009 and given the primary number P-13-012688. In 2011, DPR forms for P-13-012688 were updated to include a larger section of Dixie Drain 3, as well as Dixie Drains 2 and 4, and Dixie Lateral 1. The Dixie Drain Irrigation System is a part of a larger water conveyance system that includes Westside Drain, Forget-Me-Not Drain, and Salt Creek Drain that all empty into the New River. Dixie Lateral 1 dates back to before 1914, while Dixie Drains 2, 3, and 4 were likely constructed ca. 1940. In 2009, Dixie Drain 3 was recommended as not eligible for listing on the CRHR or NRHP due to its loss of integrity from the regular dredging and widening of the canals and drains over time. In 2011, Dixie Lateral 1 was recommended as not eligible for listing on the CRHR or NRHP for similar reasons. Formal evaluations or recommendations of eligibility were not conducted for Dixie Drains 2 and 4. The Dixie Drains run along the boundaries of the southwestern portion of the project site on a north to south axis, while Lateral 1 runs through the project site on an east to west axis.

P-13-012689 (FERN CANAL AND DRAIN SYSTEM)

P-13-012689 consists of a section of the Fern Canal and an associated section of the Fern Side Main. This resource was first recorded in 2009. Updates to include additional sections of the Fern Canal were completed in 2010, 2011, and 2017. The Fern Canal was constructed ca. 1909 and is approximately 10 miles long. Modifications were made to the canal in the 1960s, and at present, the canal is lined with concrete. The recorded portions of the Fern Canal are not recommended eligible for listing on the CRHR or NRHP due to a lack of integrity. The Fern Canal runs through the middle of the northern portion of the project site, on a north to south axis.

P-13-012693 (FIG CANAL)

P-13-012693 consists of a concrete-lined section of the Fig Canal that was constructed ca. 1912 and spans over 4 miles on a north to south axis through the easternmost portion of the project site. The Fig Canal was first recorded in 2009. DPR form updates to include additional portions of the Fig Canal

were conducted in 2011. The recorded portions of the Fig Canal are not recommended eligible for listing on the CRHR or NRHP due to a lack of integrity.

P-13-013758/CA-IMP-11759 (1651 WESTSIDE ROAD)

1651 Westside Road is a one-story ranch style house constructed as a single-family residence ca. 1955. The residence was first recorded in 2011. The building is wood-framed and rectangular in plan with a concrete foundation. The exterior is clad in stucco, and the roof is a low-pitched side gable with a front gable projection on the south section of the building and clad in asphalt roll. 1651 Westside Road was recommended not eligible for listing on the NRHP and the CRHR due to not meeting any of the criteria for inclusion in the national or state register. This resource sits along the northwestern portion of the project boundary on the west side of Westside Road, approximately 0.2 miles south of Interstate Highway 8.

P-13-014263 (2396 VAUGHN ROAD)

2396 Vaughn Road is a modern style ranch house with a low-pitch gable roof and composite roofing, a pedimented front gable entry with full-length porch, and stucco cladding on the exterior. This resource was recorded in 2009. P-13-014263 was recommended not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. This single-family residence sits along Vaugh Road, directly west of Dixie Drain 3 and within the western-central portion of the project site.

P-13-014975 (WIXOM DRAIN)

P-13-014975 (Vaughn and Jessup Roads) is an earthen-dug irrigation drainage ditch constructed ca. 1940. It is approximately 10–20 feet ASM. P-13-014975 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. The drain is located east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixom Road.

Pedestrian Survey

As part of the *Cultural Resources Inventory Report,* Dudek conducted a pedestrian survey on the project site between April 10, 2023, to April 14, 2023 by Dudek archaeologists using standard archaeological procedures and techniques. Intensive-level survey methods consisted of a pedestrian survey conducted in parallel transects spaced no more than 15 meters apart over entire portions of the project site, when appropriate. Several fields were densely vegetated by agricultural crops/grasses and ground visibility was between 0-30 percent (poor visibility). Though physically feasible, the complete intensive-level survey of these fields using formal parallel transects was determined unproductive as these areas are considered to have a low potential for containing significant cultural resources. Instead, a sample of each of these fields was surveyed using formal parallel transects. An opportunistic/reconnaissance survey approach was also utilized, selectively examining exposed ground surface areas (canals, drainages, dirt roads, low lying vegetation) where possible. In summary, 88.9 percent of the project site (1,662 acres) consisted of active agricultural fields with ground visibility ranging from 0 to 30 percent (poor visibility). Dudek surveyed a 5 percent sample of each of these fields. The remaining 11.1 percent of the project site (165 acres) had moderate to excellent visibility (40-60 percent, and 70-100 percent, respectively) and was subject to 50 to 100 percent survey using formal 15 meter parallel transects. The proposed generation intertie (gen-tie) corridor location was also surveyed within a 100’ corridor measured from the center line (Appendix F1 of this EIR).

Within each transect, the ground surface was examined for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire- affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials (Appendix F1 of this EIR).

Built Environment Inventory and Evaluation Report

In addition to the Phase I cultural inventory report, Dudek prepared a built environment and evaluation report for the proposed project to identify and evaluate built environment resources 45 years of age or older (historic era). As part of the *Built Environment Inventory and Evaluation Report*, Dudek developed an Area of Potential Impacts (API), a records search of the CHRIS, an intensive-level survey of the API for built resources of historic age (45 years of age or older); building development and archival research, the creation of an appropriate historic context, and recordation and evaluation of historic-era properties located in the API under National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) designation criteria.

In addition to a discussion of the previously recorded cultural resources within the API (Table 3.6-1), the built environment report also identified five newly recorded properties (Table 3.6-2). Dudek evaluated the API in accordance with Section 15064.5 (a)(2)-(3) of the State CEQA Guidelines and using the criteria outlined in Section 5024.1 of the PRC. Dudek concludes that the properties evaluated within the API do not appear eligible for listing in the NRHP or CRHR due to a lack of significance. As such, no properties within the API are considered to be historical resources under CEQA.

Table 3.6-2. Newly Recorded Built Environment Resources Within the API

Address/APN	Year Built	CRHR/NRHP Status
2250 West Vaughn Road (APN 051-300-027)	ca. 1976	Not eligible
2104 West Wixom Road (APN 051-330-021)	1940	Not eligible
Cattle Corral Shelter (APN 051-310-026)	ca. 1956	Not eligible
Diehl Drain (multiple APNs)	ca. 1950	Not eligible
Fig Drain (multiple APNs)	ca. 1940	Not eligible

Source: Appendix F2 of this EIR

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.

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.

[1] Ibid.

(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 3.9, 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 site. No known archaeological resources within the project site were identified. However, as discussed below, the proposed project has the potential to encounter undocumented archaeological resources and human remains. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant. Mitigation Measure CUL-3 would ensure that the potential impact on previously unknown human

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

General Plan Policies	Consistency with General Plan	Analysis
Objective 3.1 - Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Consistent	remains does not rise to the level of significance pursuant to CEQA.

Source: County of Imperial 1993
Notes:
CUL=cultural; WEAP= Worker Environmental Awareness Program

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, the *Cultural Resources Inventory Report for the Big Rock 2 Cluster Solar and Storage Project* (Appendix F1 of this EIR) and *Built Environment Inventory and Evaluation Report* (Appendix F2 of this EIR) were prepared for the project.

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

Impact Analysis

Impact 3.6-1 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.

The SCIC records search indicates that seven previously recorded cultural resources are located within the project site (Table 3.6-1). These seven resources consist of an historic wagon road (P-13-003403), four canal/water conveyance systems for agricultural use (P-13-012688, P-13-12689, P-13-12693, and P-13-014975), and two single-family residences (P-13-013758 and P-13-014263). The recorded sections of three canal/water conveyance systems (P-13-012689, P-13-012693 and P-13-014975), and the two single-family residences have all been recommended not eligible for listing on the CRHR and the NRHP. As part of the *Built Environment Inventory and Evaluation Report,* Dudek evaluated the historic wagon road and portions of one water-conveyance system (P-13-012688) for listing on the CRHR and the NRHP.

Historic Wagon Road (P-13-003403). According to the SCIC records search, the road was recorded as recently as 2009. The associated site form provides limited information and no evaluation was completed at this time. On April 11, 2023, Dudek revisited the site and did not find any indications the road was ever at this location and was likely incorrectly mapped in the API. Dudek concluded that the resource as it was previously mapped is not extant in this location (Appendix F2 of this EIR). No further analysis of this resource is warranted.

P-13-012688. Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral appear to be ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the resource is not a historical resource for the purposes of CEQA.

In addition to the previously recorded cultural resources within the API (Table 3.6-1), the built environment report also identified five newly recorded properties (Table 3.6-2). Dudek evaluated the API in accordance with Section 15064.5 (a)(2)-(3) of the State CEQA Guidelines and using the criteria outlined in Section 5024.1 of the PRC. Dudek concludes that the properties evaluated within the API do not appear eligible for listing in the NRHP or CRHR due to a lack of significance. As such, no properties within the API are considered to be historical resources under CEQA.

Given these findings, the proposed project would not result in any adverse change related to the significance of a historical resource under CEQA and impacts would be considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

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.

No newly identified prehistoric or historic-era archaeological resources were recorded on the project site. Therefore, the proposed project would not cause a substantial adverse change in the significance of a known archaeological resource pursuant to §15064.5.

Based on available archival information, the presence of archaeological resources adjacent to the project site, and in consideration of the topography, and the project's vicinity to the New River; there is a moderate potential for the inadvertent discovery of archaeological resources on the project site. The project includes ground-disturbing activities that will extend to depths of 20 feet below the ground surface. As such, the project has the potential to disturb previously undocumented cultural resources that could qualify as unique archaeological resources pursuant to CEQA. This potential impact is considered significant. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce the potential impact on archaeological resources to a level less than significant.

Mitigation Measure(s)

CUL-1 **Cultural Resources Worker Environmental Awareness Program Training.** Prior to project construction, a Cultural Resources Worker Environmental Awareness Program Training shall be developed and implemented to train equipment operators about cultural resources. The program shall be designed to inform construction personnel

about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist.

The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.

CUL-2 **Archaeological Monitoring.** Prior to the start of construction, the project applicant shall retain a qualified professional archaeologist, who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a traditionally and culturally affiliated Native American Monitor, to monitor all ground-disturbing activities associated with project construction. Monitoring is not required for placement of equipment or fill inside excavations that were monitored, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling).

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.

In the event of an unanticipated discovery of archaeological materials during construction, the qualified professional archaeologist shall evaluate the significance of the materials prior to resuming any construction related activities in the vicinity of the find. If a resource is deemed significant by the qualified archaeologist, preservation in place or avoidance of the resource shall be the preferred method of preservation consistent with Public Resources Code section 21083.2(b). If preservation in place or avoidance is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource. The methods and results of the data recovery excavation shall be included in a monitoring report, to be completed by the qualified archaeologist after completion of the project. The monitoring report shall include a description of resources recovered, treatment of the resources, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Upon completion of the project, all appropriate documentation (reports, site records, etc.) shall be submitted to the Imperial County Department of Planning and Development Services and the South Coastal Information Center.

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

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 CUL-3 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

Mitigation Measure(s)

CUL-3 **Discovery of Human Remains.** In the unlikely event that human remains are discovered during ground-disturbing activities, then the proposed project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98 (NPS 1983). If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Imperial County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Imperial County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

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 Measures CUL-1 and CUL-2 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant. Mitigation Measure CUL-3 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.

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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 Assessment 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 the Imperial Valley, a part of the Salton Trough, located in the Colorado Desert physiographic province of California. With surface elevations as low as 275 feet below sea level, the Salton Trough formed as a structural depression resulting from tectonic boundary extension between the Pacific and the North American plates. The Salton Trough is bounded on the east and northeast by the San Andreas Fault and on the west by the San Jacinto Fault Zone. The structural trough is filled with 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 that have been deposited by intermittent sedimentation derived from periodic flooding from the Colorado River and the filling of Lake Cahuilla (Appendix G of this EIR).

The project site sits in a graben valley underlain by lacustrine deposits of ancient Lake Cahuilla comprised of tan and gray fossiliferous clay, silt, sand, and gravel in conjunction with young alluvial deposits of unconsolidated clay, sand, silt, and gravel. West of the project site are mapped uplands consisting of Pliocene and Pleistocene sandstone, shale, and gravel deposits (Appendix G of this EIR).

Subsurface Soil Conditions

Previous geotechnical investigations have been completed in the vicinity of the project site along the I-8 and to the south near the Westside Main Canal. Generally, previous investigations for improvements related to the California Department of Transportation (Caltrans) are located north of the Big Rock 2 Cluster North site. According to nearby Caltrans Log-of-Test-Borings (LOTB), the explored subsurface soils generally consist of fine to coarse sands with interbedded clays and silts to the maximum depth explored of about 110 feet below ground surface (bgs). The granular soils were encountered with relative densities ranging from loose to very dense, increasing in relative density with depth. Generally, soft to stiff clays were encountered in these previous investigations within the upper 10 feet. Additionally, available information from a nearby solar project (Westside Canal Battery Storage Project) located southeast of the Big Rock 2 Cluster South site, indicate that the subsurface soils consisted of soft to hard fine-grained soils (lean clay, sandy lean clay, fat clay, and sandy silts) in the upper 25 feet bgs. Below the fine-grained soils, fine to coarse, medium dense to very dense sands with varying amounts of silts were encountered to the maximum depth of 80 feet bgs (Appendix G of this EIR).

Based on review of the Soil Survey for Imperial County prepared by the United States Department of Agriculture Soil Conservation Service, surface soils at the project site consist of ten primary groups:

- 110 Holtville silty clay
- 114 Imperial silty clay

- 115 Imperial-Glenbar silty clay loam complex
- 118 Indo loam
- 119 Indo-Vint complex
- 122 Meloland very fine sandy loam
- 123 Meloland-Holtville
- 135 Rositas fine sand
- 142 Vint loamy very fine sand, and
- 144 Vint-Indo very fine sandy loam undifferentiated group.

All of the abovementioned soil groups are described as wet and are generally limited to a 0 to 2 percent slope (Appendix G of this EIR). Figure 4 of the Preliminary Geological and Geotechnical Assessment Report (Appendix G of this EIR) shows the soil series mapped on the project site.

Groundwater Conditions

A review of the online monitoring well database from the California Department of Water Resources indicate that there are no monitoring wells with groundwater data within a 2-mile radius of the project site (Appendix G of this EIR). In the absence of available groundwater data for the project site, a review of available groundwater data was undertaken for the surrounding area.

Available groundwater information from existing Caltrans LOTB indicate the presence of shallow groundwater near the project site along the I-8. Generally, groundwater was encountered during these previous investigations at depths ranging from about 1 to 12 feet bgs, corresponding to groundwater elevations ranging from about -41 and -49 feet North American Vertical Datum (NAVD) 88 (Appendix G of this EIR).

On the southern end of the project near the Big Rock 2 Cluster South site, groundwater was encountered at depths ranging from about 9 to 19 feet, corresponding to groundwater elevations ranging from about -30 to -37 feet NAVD 88(Appendix G of this EIR).

Faulting

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 (SAFS) that spans a 150-mile-wide zone from the main San Andreas fault in the Imperial Valley westward to offshore of San Diego. The major faults east of San Diego (from east to west) include the San Andreas Fault, the San Jacinto Fault, and the Elsinore Fault. The SAFS is a transform plate boundary dominated by right-lateral fault displacement with the Pacific Plate moving northwest relative to the North American Plate. The significance of this lateral faulting is that transform plate interactions typically generate much smaller maximum magnitude earthquakes than convergent or subduction plate boundaries. Thus, in Southern California the expected maximum moment magnitudes for most faults are typically in the M6.5 to M7.5 range, with only a few faults (San Andreas

Fault, possibly some thrust faults of the Transverse Ranges) capable of generating earthquakes in the M8 range, such as the 1906 San Francisco and 1857 Fort Tejon earthquakes, on the San Andreas Fault itself (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. Figure 5 of the *Preliminary Geological and Geotechnical Assessment Report* (Appendix G of this EIR) shows the location of nearby faults relative to the project site. There is an unnamed fault (Unnamed Creep-Active Fault) in the vicinity of the project site located approximately three miles northwest. USGS has classified this unnamed fault as “historic-well constrained” with an age of less than 150 years old (Appendix G of this EIR).

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.

Fault-Rupture Hazard

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. In 1972 the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was passed, which required fault studies within 500 feet of active or potentially active faults. The Alquist-Priolo Act designates “active” and “potentially active” faults utilizing the same age criteria as that used by the CGS (Appendix G of this EIR).

The project site is not located within a currently delineated State of California Alquist-Priolo Earthquake Fault Zone. The nearest Alquist-Priolo Earthquake Fault Zones are located approximately 0.7 miles (Route 247 Fault Zone) and 2.5 miles (Yuha Basin Faults) from the Big Rock 2 Cluster South site and Big Rock 2 Cluster West site, respectively. The likelihood of fault rupture at the project site is considered low (Appendix G of this EIR).

Liquefaction

The term liquefaction describes a phenomenon in which saturated, cohesionless soils temporarily lose shear strength (liquefy) when subjected to cyclic ground motions. Cyclic loading of saturated soils leads to the build-up of pore water pressure as a result of soil particles being rearranged with a tendency toward closer packing. Under undrained conditions, shaking of loose noncohesive soils may result in loads being transferred from the soil skeleton to the pore water with consequent reduction in the soil strength and stiffness. Structures founded on or above potentially liquefiable soils may experience bearing capacity failures due to the temporary loss of foundation support, vertical settlements (both total and differential), and/or undergo lateral spreading. 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. Based on historical explorations, there is a possibility of encountering relatively shallow groundwater (in the upper 50 feet bgs) in zones of loose sands with variable fines content. Therefore, the potential for liquefaction exists at the project site (Appendix G of this EIR).

Landslides

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. The project site is relatively flat. Due to the existing topography, landslides are not considered a potential hazard for the project.

Lateral Spreading

Liquefaction-induced lateral spreading is defined as the lateral displacement of ground as a result of pore pressure build-up or liquefaction in shallow underlying soils during an earthquake. Lateral spreading can occur on sloping ground or where nearby slopes are present. The factors known to influence the magnitude of lateral spreading include earthquake magnitude, peak ground acceleration, distance between the project site and the seismic event, the slope height and gradient, thickness of the liquefied layer, fines content, soil particle gradation, and residual strength of the liquefied soil.

Based on a preliminary evaluation of on site subsurface conditions and general site topography, lateral spreading is not a considered a potential hazard on the project site.

Land Subsidence

Subsidence is the sinking of the ground surface caused by the compression of earth materials or the loss of subsurface soil due to 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. However, according to the City of Calipatria’s '2035 General Plan, natural subsidence occurs in the Salton Trough, averaging two inches

per year in the Salton Sea and decreasing outward until it reaches zero near the Mexican border. Therefore, the potential for subsidence exists at the project site (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. Based on available data, the onsite near-surface soil deposits primarily consist of granular soils (clayey sand and silty sands) and fine-grained soils (fat clay, lean clay, and silts). Generally, clays may exhibit moderate to high expansion potential due to variation in moisture content and sands are considered not expansive soils.

Clays are expected to be found at the project site. Therefore, the potential for expansive soils exists at the project site.

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.

At this time, it is unknown whether collapsible soils are present at the project site. However, since the area is within an arid region with high winds, the presence of windblown loess materials at the project site is possible. As such, the potential for collapsible soils exists at 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. 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 sits in a graben valley underlain by lacustrine deposits of ancient

Lake Cahuilla. 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 Alquist-Priolo Special Studies Earthquake Hazards Act (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 2022 California Building Standards Code were published on July 1, 2022, with an effective date of January 1, 2023.

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 3.7-1 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 3.7-1. Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Seismic and Public Safety Element		
Goal 1. Integrate public health and resilience into 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.
Policy 1.1. Incorporate data on areas with geological and seismic hazards into the land use review process and future development processes. As development is proposed, developers shall be required to provide information related to these hazards.		
Policy 1.3. Regulate development adjacent to or near all mineral deposits and geothermal operations.		

Table 3.7-1. Project Consistency with Applicable General Plan Policies

General Plan Policies	Consistency with General Plan	Analysis
Policy 1.4. Require seismic risks be avoided, when feasible, and mitigation measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service.		Since the project site is located in the seismically active Southern California region, the project is required to be designed in accordance with the CBC. With implementation of the mitigation requirements outlined in the impact analysis, the risks associated with seismic hazards would be minimized. A preliminary geotechnical study has been prepared for the proposed project. The preliminary geotechnical study has been referenced in this environmental document. Additionally, a design-level geotechnical investigation will be conducted to evaluate the potential for site specific hazards associated with seismic activity.
Goal 2: Avoid loss of life, injury, and property damage from seismic and geologic hazards.		
Policy 2.2. Require new development in areas prone to geologic hazards (e.g., landslides, slope instability) to be adequately protected against these hazards. Any development in hillside areas shall prepare drainage plans to direct runoff and drainage away from potentially unstable slopes. New developments shall incorporate hillside design techniques and features to mitigate and support slope stability.		
Policy 2.5.. Require that geological and geotechnical investigations for new development proposals in areas with potential earthquake-induced liquefaction, landslides, or settlement. To the extent feasible, the County will limit intensive developments and land uses along rivers and waterways where it is likely that erosion could cause property damage or threaten life during high-precipitation events.		

Source: County of Imperial 2022

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 Assessment Report* (Appendix G of this EIR) 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. 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 low. The project would not increase or exacerbate existing hazards related to fault rupture. The proposed project would not directly or indirectly cause potential substantial adverse

effects, including the risk of loss, injury or death involving rupture of a major fault as delineated on the most recent Alquist-Priolo Fault Zoning map. This impact would be less than significant.

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?

The closest mapped fault to the project site is an unnamed fault (Unnamed Creep-Active Fault) which is approximately three miles to the northwest. In the event of an earthquake along this fault or another regional fault, seismic hazards related to ground motion could occur in susceptible areas within the project site. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the moment magnitude, and the duration of shaking.

Even with the integration of building standards that are designed to resist the effects of strong ground motion, ground shaking within the project site could cause some structural damage to the facility structures or, at least, cause unsecured objects to fall. During a stronger seismic event, ground shaking could result in structural damage or collapse of electrical distribution facilities. Given the potentially hazardous nature of the project facilities, the potential impact of ground motion during an earthquake is considered a significant impact, as proposed structures, such as the substation and transmission lines could be damaged. However, 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 project site has not been mapped for liquefaction potential by the CGS (Appendix G of this EIR). Based on historical explorations, there is a possibility of encountering relatively shallow groundwater (in the upper 50 feet bgs) in zones of loose sands with variable fines content on the project site. Therefore, the potential for liquefaction exists at the project site. Additional geotechnical investigation would be required during the design phase of the project 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.

Significance after Mitigation

With implementation of Mitigation Measure GEO-1, potential impacts associated with liquefaction 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 3.7-4 Would the project directly or indirectly cause potential substantive adverse effects, including the risk of loss, injury, or death involving:

Landslides?

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 will 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 which 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 Stormwater Pollution Prevention Plan (SWPPP) for sediment and erosion control and implementation of best management practices (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. 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?

Landslides. The project site has a relatively flat topographic gradient. Therefore, the project would not result in on- or off-site landslides and no impact would occur.

Lateral Spreading. Based on a preliminary evaluation of on site subsurface conditions and general site topography, lateral spreading is not a considered a potential hazard on the project site. However, in areas where project components are planned adjacent to existing channels, there could be potential lateral spreading issues that may require further evaluation in future design phases. 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**.** 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 to a level less than significant.

Land Subsidence. 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. However, according to the City of Calipatria's 2035 General Plan, natural subsidence occurs in the Salton Trough. Therefore, the potential for subsidence exists at the project site (Appendix G of this EIR). Additional geotechnical investigation would be required in order to assess the risk of subsidence to occur on the project site. The potential impact associated with subsidence 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 subsidence to a level less than significant.

Liquefaction. As described above, the project site has not been mapped for liquefaction potential by CGS. Based on historical explorations, there is a possibility of encountering relatively shallow groundwater (in the upper 50 feet bgs) in zones of loose sands with variable fines content. Therefore, the potential for liquefaction exists at the project site (Appendix G of this EIR). Additional geotechnical investigation would be required in order to assess the risk of liquefaction on the project site. Therefore, 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 impacts associated with liquefaction to a level less than significant.

Collapsible Soils. It is unknown whether collapsible soils are present on the project site. However, since the area is within an arid region with high winds, the presence of windblown loess materials at the project site is possible. As such, the potential for collapsible soils exists at 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 collapsible soils to a level less than significant.

Mitigation Measure(s)

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

Significance after Mitigation

With implementation of Mitigation Measure GEO-1, potential impacts associated with lateral spreading, subsidence, liquefaction, and collapsible soils would be reduced to a level less than significant with the implementation of recommendations made by a licensed geotechnical engineer in compliance with the CBC prepared as part of a formal geotechnical investigation.

Impact 3.7-7 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. Based on the available data, the onsite near-surface soil deposits primarily consist of granular soils (clayey sand and silty sands) and fine-grained soils (fat clay, lean clay, and silts). Generally, clays may exhibit moderate to high expansion potential due to variation in moisture content and sands are considered not expansive soils. Clays are expected to be found at the project site. Therefore, the potential for expansive soils exists at the project site. 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, fine grained and potentially corrosive soils are expected to be encountered at the project site. 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. A site-specific geotechnical investigation would be required at the project site to determine the extent and effect of problematic soils. 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.

Significance after Mitigation

With implementation of Mitigation Measure GEO-1, potential impacts associated with expansive and corrosive soils would be reduced to a level less than significant with the implementation of recommendations made by a licensed geotechnical engineer in compliance with the CBC prepared as part of a formal geotechnical investigation.

Impact 3.7-8 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 project applicant is proposing the use of a standard on-site septic tank and leach field for the treatment and disposal of on-site generated sanitary wastewater. This would occur only at the O&M building. Site specific studies will be required to determine that County Environmental Health standards are met in regard to soil percolation rates and separation of leach fields from groundwater.

Notwithstanding these design requirements, potential equipment failures or wastewater loading rates in excess of the design capacity of the treatment and disposal system could lead to water quality degradation. This potential impact is considered significant. Implementation of Mitigation Measure GEO-2 would reduce the impact associated with on-site water treatment and disposal to a level less than significant.

Mitigation Measure(s)

GEO-2 **Demonstrate Compliance with On-site Wastewater Treatment and Disposal Requirements.** The project's wastewater treatment and disposal system(s) shall demonstrate compliance with the Imperial County performance standards as outlined in Title 9, Division 10, Chapters 4 and 12 of the Imperial Land Use Ordinance. Prior to construction, and again prior to operation, the project applicant will obtain all necessary permits and/or approvals from the Imperial County Public Health Department, Division of Environmental Health. The project applicant shall demonstrate that the system adequately meets County requirements, which have been designed to protect beneficial uses and ensure that applicable water quality standards are not violated. This shall include documentation that the system will not conflict with the Regional Water Quality Control Board's Anti-Degradation Policy.

Significance after Mitigation

With implementation of Mitigation Measure GEO-2, potential impacts related to infiltration of wastewater into the soil column and water quality degradation would be reduced to a less than significant level through compliance with County performance standards.

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

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 sits in a graben valley underlain by lacustrine deposits of ancient Lake Cahuilla. 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. Surficial sediments that have been disturbed by agricultural activities or other human-made disturbances have low paleontological resource sensitivity

and do not require paleontological monitoring. However, deeper excavations, below the disturbance level, that encounter undisturbed Lake Cahuilla sediments would be considered a potentially significant impact. However, implementation of Mitigation Measure GEO-3 and GEO-4 would reduce the potential impact on paleontological resources to a level less than significant.

Mitigation Measure(s)

GEO-3 **Paleontological Resources Monitoring.** Prior to commencement of any grading activity in areas of high paleontological sensitivity, the project applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The qualified paleontologist or their representative shall attend the preconstruction meeting and a qualified paleontological monitor shall be present during excavation activities associated with project construction. The depth of excavation that requires paleontological monitoring shall be determined by the paleontological monitor and the construction contractor based on initial observations during construction earth moving. The paleontological monitor will be equipped to salvage fossils as they are unearthed (to help avoid construction delays). Monitors are empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation. Fossil specimens shall be curated by accessioning them into an established, accredited museum repository with permanent retrievable paleontological storage. Costs for laboratory and museum curation fees are the responsibility of the project applicant/proponent. A report of findings with an appended itemized inventory of specimens will be prepared. The report and inventory, when submitted to the Imperial County Department of Planning and Development Services, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts on paleontological resources.

GEO-4 **Paleontological Resources Worker Awareness Program.** Prior to any ground disturbance, the qualified paleontologist shall conduct initial Paleontological Resources Worker Environmental Awareness Program (WEAP) training to all construction personnel, including supervisors, present at the outset of the project construction work phase, for which the Lead Contractor and all subcontractors shall make their personnel available. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to paleontological resources and maintain environmental compliance and be performed periodically for new personnel coming on to the project as needed. The WEAP training can be performed by video or audio presentation following the initial WEAP presentation. An acknowledgement form signed by each worker indicating that WEAP training has been completed shall be kept on record. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the WEAP training and copies of the signed acknowledgement forms shall be submitted to the ICPDS.

Significance after Mitigation

Implementation of Mitigation Measure GEO-3 and GEO-4 would reduce the potential impact on paleontological resources to a level less than significant. Mitigation Measure GEO-3 requires a qualified paleontological monitor to be present during excavation activities associated with project construction. The paleontological monitor will be equipped to salvage fossils as they are unearthed and are empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Mitigation Measure GEO-4 requires all construction personnel to attend and complete a WEAP training, which will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to paleontological resources and maintain environmental compliance.

3.7.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. 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, subsidence, 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. With the implementation of Mitigation Measure GEO-2, impacts resulting from new on-site wastewater treatment and disposal systems would be reduced to a less than significant level. Implementation of Mitigation Measure GEO-3 and GEO-4 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.

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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. Information contained in this section is summarized from the *Air Quality and Greenhouse Gas Emissions Technical Report* prepared by HDR Engineering, Inc. This report is included in Appendix D of this EIR.

3.8.1 Existing Conditions

Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHGs), play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the GHGs.

Water Vapor. Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher, leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere.

Carbon Dioxide. The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm).The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane. CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production. 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 methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide. N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant.

Chlorofluorocarbons. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons. Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons. Perfluorocarbons (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. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride. Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols. Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Greenhouse Gas Emissions Inventory

CARB compiles GHG inventories for the State of California. The most updated inventory is referred to as the 2023 edition, which reports the State's GHG emissions inventory from calendar year 2021. Based on the 2021 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 381.3 $MMTCO_2e$ including emissions resulting from imported electrical power (Appendix D of this EIR). According to CARB, as of 2016, statewide GHG emissions dropped below the 2020 GHG Limit (431 $MMTCO_2e$) and have remained below the limit since that time, due in part to the state's GHG reduction programs (such as the RPS, Low Carbon Fuel Standard (LCFS), vehicle efficiency standards, and declining caps under the Cap and Trade Program). Table 3.8-1 identifies and quantifies Statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2021 (i.e., the most recent year in which data are available from CARB) (Appendix D of this EIR). As shown in Table 3.8-1, the transportation sector is the largest contributor to Statewide GHG emissions at approximately 38 percent in 2021.

Table 3.8-1. State of California Greenhouse Gas Emissions

Category	Total 1990 Emissions ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2021 Emissions ($MMTCO_2e$)	Percent of Total 2021 Emissions
Transportation	150.7	35%	145.6	38%
Electric Power	110.6	26%	62.4	16%
Commercial	14.4	3%	12.2	4%
Residential	29.7	7%	24.8	7%
Industrial	103.0	24%	73.9	19%
Recycling and Waste [a]	–	–	8.4	2%
High-GWP/Non-Specified [b]	1.3	<1%	21.3	6%
Agriculture/Forestry	23.6	6%	30.9	8%
Forestry Sinks [c]	-6.7		--	--
Net Total (IPCC AR4) [d]	**431**	**100%**	**381.3**	**100%**

Source: Appendix D of this EIR

[a] Included in other categories for the 1990 emissions inventory.

[b] High-GWP gases are not specifically called out in the 1990 emissions inventory.

[c] Revised methodology under development (not reported for 2021).

[d] CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

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 Economy Standards

The Corporate Average Fuel Economy (CAFE) standards were first introduced by Congress in 1975 to help reduce the country's dependence on foreign oil. CAFE standards are regulated by Department of Transportation's National Highway Traffic and Safety Administration (NHTSA). NHTSA sets and enforces the CAFE standards, while the USEPA calculates average fuel economy levels for manufacturers, and also sets related GHG standards. The regulations have become more stringent over time. The regulations at first applied only to passenger cars in 1978, then included light duty trucks up to 6,000 pounds in 1980, and finally increased to all vehicles up to 8,500 pounds the next year. Regulations varied during the 1980s for both cars and trucks before reaching a steady target for cars in 1990 through 2010, with trucks moderately increasing during the period from 20 to 21 miles per gallon (mpg) through 2005, then reaching 23.5 mpg by 2010.

On April 1, 2010, the USEPA and the NHTSA announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States. This rule required passenger cars, light-duty trucks, and medium-duty passenger vehicles to meet fuel economy standards. In 2011, the USEPA and NHTSA issued a final rule for the first national standards to improve fuel efficiency of medium- and heavy-duty trucks and buses.

In 2020, the USEPA and NHTSA, issued the Safer Affordable Fuel Efficient (SAFE) Vehicles Rule which set new CAFE targets and tailpipe CO_2 emissions standards for passenger cars and lights trucks that increase 1.5 percent in stringency each year from model years 2021 through 2026. In 2021, President Biden signed an executive order (EO) directing the government to revise fuel economy standards, with the goal of further reducing emissions. NHTSA finalized the CAFE Standards for model years 2024-2026 in 2022. The final rule establishes standards that would require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026 (NHTSA 2022). NHTSA projects the standards will cut greenhouse gases from the atmosphere, reduce air pollution, and reduce the country's dependence on oil (NHTSA 2021).

On July 28, 2023, NHTSA announced a proposal for new CAFE standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in MY 2032, by increasing fuel economy by 2 percent year over year for passenger cars and by 4% year over year for light trucks. For heavy-duty pickup trucks and vans, the proposal would increase fuel efficiency by 10 percent year over year.

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.

Executive Order B-30-15

On April 20, 2015, Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. California's emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the United States to limit global warming below 2 degrees Celsius, the warming threshold at which there will likely be major climate disruptions such as super droughts and rising sea levels.

Executive Order B-55-18

EO B-55-18, signed on September 10, 2018, established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The EO requires the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

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.

Imperial Valley Regional Climate Action Plan

The Imperial County Transportation Commission is currently developing a Regional Climate Action Plan (RCAP), which is a strategy for how the region will work toward reducing its GHG emissions in accordance with statewide targets. The Imperial County Transportation Commission is committed to a collaborative and inclusive process and is conducting extensive outreach about the strategies that are to be included within the RCAP. The RCAP encompasses all of Imperial Valley, including Imperial County, and the seven incorporated cities: Calipatria, Calexico, Brawley, El Centro, Holtville, Imperial, and Westmorland. The RCAP is intended to facilitate the reduction of GHG emissions throughout Imperial County in a way that is practical, efficient, and beneficial to the community and enhances Imperial County's desirable characteristics and qualities. The foundation for developing emission reduction and climate adaptation measures will be based on the County's existing work, as detailed in the region's extensive plans and programs. The RCAP has not been finalized or adopted nor has it been qualified in accordance with CEQA Guidelines Section 15183.5 but is included for disclosure purposes.

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.

South Coast Air Quality Management District Significance Threshold

The ICAPCD has not adopted a GHG significance threshold. As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Thus, in the absence of any

GHG emissions significance thresholds, the County has relied upon the SCAQMD quantitative thresholds, as discussed below.

In December 2008, the SCAQMD adopted a 10,000 $MTCO_2e$ per year significance threshold for industrial facilities for projects in which the SCAQMD is the lead agency. Although SCAQMD has not formally adopted a significance threshold for GHG emissions generated by a project for which SCAQMD is not the lead agency, or a uniform methodology for analyzing impacts related to GHG emissions on global climate change, in the absence of any industry-wide accepted standards applicable to this project, the SCAQMD's significance threshold of 10,000 $MTCO_2e$ per year for industrial projects is the most relevant GHG significance threshold and is used as a benchmark for the proposed project. It should be noted that the SCAQMD's significance threshold of 10,000 $MTCO_2e$ per year for industrial projects is intended for long-term operational GHG emissions. The SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over an assumed project lifetime of 30 years and added to operational emissions and then compared to the threshold (Appendix D of this EIR).

A project is considered to have a significant impact and cumulatively considerable impact if it exceeds the SCAQMD's significance threshold of 10,000 $MTCO_2e$ per year.

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. Emissions were estimated using existing conditions, project construction and operations information, as well as a combination of emission factors from various sources. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2022. 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.

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. During construction, GHG emissions would be generated from the operation of off-road equipment, haul-truck trips, and on-road worker vehicle trips. Table 3.8-2 shows the project's unmitigated and mitigated construction-related GHG emissions. During the approximate 24-month construction period, the proposed project would generate an estimated 3,470 $MTCO_2e$, or approximately 116 $MTCO_2e$ annually amortized over a 30-year period. Therefore, the proposed project's construction emissions are less than the SCAQMD's significance threshold of 10,000 $MTCO_2e$ per year and this is considered a less than significant impact.

Table 3.8-2. Annual Construction GHG Emissions ($MTCO_2e$ per year)

Year/Description	GHG Emissions
2026	2,666
2027	691
2050	2,016
Project Total	3,357
Amortized Construction Emissions	**112**

Source: Appendix D of this EIR

Operation. Once the project is constructed and operational, the proposed project would have minimal amounts of emissions generated from maintenance operations, including routine cleaning and from periodic visits from service vehicles. It is assumed the project would share O&M, substation, and/or transmission facilities with other adjacent PV solar and BESS projects that have been approved and entitled by Imperial County, or with any future nearby proposed renewable energy projects. This would thereby reduce the project's on-site staff to below the anticipated 4 to 10 full-time employees. Additionally, there are no expected sources of stationary emission sources (i.e. emergency generators). Therefore, minimal additional emissions would be generated from vehicle trips by worker staff for periodic inspections or maintenance purposes and operational GHG emissions would be less than significant.

As shown in Table 3.8-2, the estimated total GHG emissions for the project would not exceed the SCAQMD threshold of 10,000 MT CO_2e per year. Projects below this significance criterion would have a minimal contribution to global emission and are considered to have less than significant impacts. Therefore, construction and operational GHG impacts associated with the project would be less than significant.

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 project would generate an incremental contribution to and a cumulative increase in GHG emissions, however, the proposed project-generated GHG emissions would not exceed the SCAQMD significance threshold, which was prepared with the purpose of complying with statewide GHG-reduction efforts. Below is a discussion of the proposed project's consistency with the 2022 Scoping Plan Update, the 2020-2045 RTP/SCS, and Imperial Valley Climate Action Plan.

2022 Scoping Plan Update

The 2022 Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions.

Many of the measures and programs included in the 2022 Scoping Plan would result in the reduction of project-related GHG emissions, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels (low-carbon fuel standard), and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy). Although the project would introduce GHGs into the

environment, once construction is complete, the project would be a producer of renewable energy, which generates substantially less GHG emissions compared with the more common types of fossil-fueled energy generation facilities. It is anticipated the project would generate up to a combined 500 MW of alternating current (AC) on a daily basis and up to 500 MW of battery storage. The contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) and 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 year 2030). Therefore, the short-term minor generation of GHG emissions during construction, which is necessary to create a 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. As such, the project is consistent with measures in the 2022 Scoping Plan.

2020-2045 RTP/SCS

At the regional level, the 2020–2045 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs. Typically, a project would be consistent with the RTP/SCS if the project does not exceed the underlying growth. assumptions within the RTP/SCS. As previously discussed, the project would include 4 to 10 new employees and would be consistent with the growth projections for the air quality management plan. Therefore, the project would not conflict with implementation of the strategies identified in the 2020 RTP/SCS to reduce GHG emissions.

Imperial Valley Regional Climate Action Plan

As previously mentioned, the RCAP has not been adopted nor been qualified in accordance with CEQA Guidelines. However, the project would be consistent with Strategy E-2: Increase Renewable and Zero-Carbon Energy Generation, and Strategy E-3: Develop Clean Energy Jobs within the RCAP, as it is a solar project and would generate 4 to 10 new jobs. Therefore, the project would not conflict with the RCAP.

Given the project's consistency analysis with applicable GHG plans, policies and regulations adopted for the purpose of reducing GHG emissions and emissions below the significance threshold, impacts would be less than significant. 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 RPS (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions, a key environmental benefit. Scoping Plan Measure E-3 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 a 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.

Furthermore, 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 associated with 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 CUPs, would generally be consistent with statewide GHG emission goals and policies including SB 32. Project consistency with applicable plans, policies, and regulations adopted to reduce GHG emissions would ensure that the project would not result in any residual significant and unavoidable impacts with regards to global climate change.

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3.9 Hazards and Hazardous Materials

This section addresses potential hazards and hazardous materials for construction and operational impacts. Information contained in this section is summarized from the *Phase I Environmental Site Assessment* prepared by HDR. This report is included as Appendix H of this EIR.

3.9.1 Existing Conditions

The project site is located on approximately 1,849 acres of privately-owned land in the unincorporated area of Imperial County, California. The project site consists primarily of agricultural fields and unpaved roads, and all the project parcels have been extensively cleared, plowed, and maintained for agricultural production. Due to the extensive irrigated farming history within the project site and surrounding area, as well as locally high-water table, many irrigation canals and drains occur within proximity of the project. These include a segment of the New River adjacent to the northeast corner of the project, and the IID Westside Main Canal which is located along the west and southern edges of the project site.

The project site is adjacent and proximal to both Agricultural and Agricultural/Rural lands that have been rezoned for renewable energy development, specifically for PV solar and BESS projects that have been approved by Imperial County. Campo Verde Solar, owned by Southern Power, became operational in September 2013 and is located on multiple APNs that are adjacent to the project site.

Phase I ESA

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. The Phase I ESA included a records review, site reconnaissance, and interviews, which are summarized below.

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.

Historical aerial photographs were reviewed from the EDR Aerial Photo Decade Package for the following years: 1937, 1949, 1953, 1976, 1985, 1996, 2002, 2006, 2009, 2012, 2016, and 2020. In 1937, the project site and adjacent properties were used for agricultural practices or were undeveloped floodplains/sloughs, alluvial fans/terraces, and arid shrublands. In 1953, the floodplain/slough areas located in the north-central portion of the project site and on adjacent properties were starting to be converted to agricultural land. The 1976 aerial photograph shows the project site and surrounding properties as being similar to the current agricultural use. Additionally, the irrigation canals in the north-central and eastern portions of the project site had been modified. In 2002, the property on the western boundary of the project site that burned down was no longer visible. The 2016 aerial photograph shows solar developments in alignment with the existing solar facilities. No substantial changes were noted in the 1949, 1984, 1996, 2006, 2009, 2012, and 2020 aerial photographs.

EDR was contracted by HDR to complete a database search of federal, state, local, and tribal environmental records for the project site. The database search was performed for the project site by

EDR on September 30, 2024. The databases searched included federal, state, local, tribal, and EDR proprietary databases for listings located within the project site, and an additional 1-mile search buffer zone. A complete copy of the EDR environmental database report and detailed maps are included in the Phase I ESA (Appendix H of this EIR).

The environmental database search identified 13 mapped listings for 8 sites within the project site, and 11 listings within the 1-mile search buffer. The listings within the project site and many of the listings within the search buffer were determined to be incorrectly mapped and are actually outside of the project site vicinity based on further review. The majority of these database listings were for the generation of regulated and/or hazardous wastes. Only one site, Jerry Preece Jr. Farms, located west of the project site at 2396 W Vaughn Road had any reported violations associated with waste/chemical storage and disposal, including violations for open used oil filter containers, improper labeling, equipment testing failure, used oil spill, improper lead acid battery management, and not disposing of waste within the required time frames. Five violations remain open for this site, which is located northeast of the Big Rock 2 Cluster West site. A review of the violations indicates that conditions noted are generally localized to this property and are unlikely to impact the project site. Therefore, this is not considered a recognized environmental condition (REC).

Site Reconnaissance

A site reconnaissance was performed on October 22, 2024. The reconnaissance consisted of visual observation of surficial conditions at the project site and observation of adjoining properties to the extent that they were visible from public areas. Due to the size of the property, HDR was unable to inspect the entirety of the property. However, due to the agricultural and undeveloped nature of the property, this limitation does not represent a significant data gap. The following is a summary of observations made by HDR during the site reconnaissance.

All the plots observed appeared to be fallow or actively cultivated. Features observed throughout the plots included unlined or concrete-lined canals with water control gates, sprinklers, unpaved roads, an electrical pump, two approximately 1,600-gallon ASTs labelled “Green Touch” (likely an agrichemical), a 275-gallon tote, and piles of hay. An electrical pump and storage containers were observed on the southeastern portion of the project site. Although the exact contents of the ASTs and storage tote could not be specified, due to the lack of spills or leakage observed in the vicinity of the containers and the use of the project site for agricultural purposes, the presence of the ASTs did not represent an environmental concern.

Other features observed within the project site included asphalt-paved roads, creeks, and a few structures. A residence was noted on the southwest side of the intersection of Jessup Road and Campbell Road, and a metal shed was present on the northwest side of the intersection. Nothing was stored along the exterior areas of the shed. Access to the interior of the shed or residence was not provided. It was noted that the metal shed was built above a concrete foundation.

Utilities and PCBs

HDR noted transmission lines, pole-mounted transformers, and signs indicating the presence of underground utilities owned by AT&T. The pole-mounted transformers were located near the metal shed and the electrical pump. The installation date of the transformers is unknown; therefore, the transformers could contain PCBs due to their age. However, no evidence of leaks, spills, or corrosion was observed in the vicinity of the transformers. Based on their good condition, the pole-mounted transformers were not an environmental concern.

Vapor Intrusion

The potential for vapor intrusion was evaluated for the project site. Based on the current and historical use of the project area, and the lack of VOC sources in the immediate vicinity, vapor intrusion is not considered to be of concern for the project site.

Per-and Polyfluoroalkyl Substances

Potential sources of Per-and Polyfluoroalkyl Substances (PFAS) were evaluated for the project site. Federal and state PFAS databases were reviewed for PFAS-related sites/sources within the project site search buffer. No listings were identified. However, the following PFAS sources could be associated with the project site given known or common practices with agricultural properties:

- Potential application of municipal biosolids in agricultural fields.
- Use of insecticides (pesticides) and herbicides.

Previous incident records of spills or potential over application within the project site or adjacent properties have all been closed. The use of pesticides and herbicides on the project site is not considered a REC.

Interviews

Interviews were conducted with 8 out of 9 landowners of the project site. The responding landowners indicated that the properties have only been used for agricultural purposes under their ownership and there were no environmental concerns identified in the surveys completed. However, one of the landowners indicated that there was a homestead that burned down 20 years ago on their property, but site cleanup details were not provided. Based on historical aerials, it appears the homestead was located on the northwest corner of APN 051-290-019 (Big Rock 2 Cluster West site). Burned debris may have been buried in-place, which may contain asbestos containing materials or other hazardous building materials. The risk of encountering this debris does not meet the definition of a REC but is considered a Business Environmental Risk.

Proximity to Schools

The project site is located within 0.25 mile of the former Westside Elementary School (2295 West Vaughn Road), located approximately 200 feet from the closest boundary of the Big Rock 2 Cluster North site. However, according to the California Department of Education's California School Directory, Westside Elementary School closed on June 30, 2012 (California Department of Education 2017).

Proximity to Airports

The project site is not located within 2 miles of a public airport or a public use airport. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site.

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 2022).

3.9.2 Regulatory Setting

This section identifies and summarizes 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 and BESS project and does not propose residential uses.

Imperial County Public Health Department

DTSC was appointed the Certified Unified Program Agency (CUPA) for Imperial County in January 2005. The Unified Program is the consolidation of 6 state environmental programs into one program under the authority of a CUPA. The CUPA inspects businesses or facilities that handle or store hazardous materials, generate hazardous waste, own or operate ASTs or USTs, and comply with the California Accidental Release Prevention Program. The CUPA Program is instrumental in

accomplishing this goal through education, community and industry outreach, inspections and enforcement.

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 impacts related to hazards and hazardous materials, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, Project impacts related to hazards and hazardous materials are considered significant if any of the following occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment
- For a Project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

Methodology

This analysis evaluates the potential for the project, as described in Chapter 2, Project Description to result in significant impacts related to hazards and hazardous materials on or within the 1-mile buffer

zone of the project site. This analysis considers whether these conditions would result in an exceedance of one or more of the applied significance criteria as identified above.

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 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 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

Additionally, hazardous material storage and management will be conducted in accordance with requirements set forth by the ICFD, Imperial County OES, DTSC, and CUPA for storage and handling of hazardous materials. Further, construction activities would occur according to OSHA regulatory requirements; therefore, it is not anticipated that the construction activities for the proposed Project would release hazardous emissions or result in the handling of hazardous or acutely hazardous materials, substances, or waste. This could include the release of hazardous emissions, materials, substances, or wastes during operational activities. With the implementation of an HMMP and adherence to requirements set forth by the ICFD, Imperial County OES, DTSC, OSHA regulatory requirements and CUPA would reduce the impact to a level of less than significant.

Battery Energy Storage System

In conjunction with the construction of the solar facility, a battery energy storage system will be constructed to store the energy generated by the solar panels. Transportation of hazardous materials relating to the battery system includes electrolyte and graphite and would occur during construction, operation (if replacement of batteries is needed) and decommissioning (removal of the batteries). All of these various materials would be transported and handled in compliance with DTSC regulations. Therefore, likelihood of an accidental release during transport or residual contamination following accidental release is not anticipated.

Lithium-ion batteries used in the storage system contain cobalt oxide, manganese dioxide, nickel oxide, carbon, electrolyte, and polyvinylidene fluoride. Of these chemicals, only electrolyte should be considered hazardous, inflammable and could react dangerously when mixed with water. The U.S. Department of Transportation (DOT) regulates transport of lithium-ion batteries under the DOT's Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180). The HMR apply to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Lithium-ion batteries must conform to all applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water (DOT 2020). Additionally, carbon (as graphite) is flammable and could pose a fire hazard. 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?

The project site has been used for agricultural production with irrigation canals since at least 1915. 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. However, 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.

As stated above, construction of the proposed project will involve the use of limited use of hazardous materials, such as fuels and greases to fuel and service construction equipment, and during operation regular and routine maintenance of the proposed project may result in the potential to handle hazardous materials. However, the hazardous materials handled on-site would be limited to

small amounts of everyday use cleaners and common chemicals used for maintenance. The applicant will be required to comply with State laws and County Ordinance restrictions, which regulate and control hazardous materials handled on-site. Therefore, a less than significant impact has been identified for this issue area.

Hazardous Materials

The environmental database search identified 13 mapped listings (for 8 sites) within the project site, and 11 listings within the 1-mile search buffer. The listings within the project site and many of the listings within the search buffer were determined to be incorrectly mapped outside the project site vicinity based on further review. The majority of these database listings were for the generation of regulated and/or hazardous wastes. Only one site, Jerry Preece Jr. Farms, located west of the project site at 2396 W Vaughn Road had any reported violations associated with waste/chemical storage and disposal, including violations for open used oil filter containers, improper labeling, equipment testing failure, used oil spill, improper lead acid battery management, and not disposing of waste within the required time frames. Five violations remain open for the Jerry Preece Jr. Farms site, which is located northeast of the Big Rock 2 Cluster West site. A review of the violations indicates that conditions noted are generally localized to the Jerry Preece Jr. Farms site and are unlikely to impact the project site. Therefore, this is not considered a REC.

One of the landowners indicated that there was a homestead that burned down 20 years ago on their property (northwest corner of APN 051-290-019 (Big Rock 2 Cluster West site)), but site cleanup details were not provided. Burned debris may have been buried in-place, which may contain asbestos containing materials or other hazardous building materials. However, the risk of encountering this debris does not meet the definition of a REC. This is considered a less than significant impact.

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.

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 located within 0.25 mile of the former Westside Elementary School (2295 West Vaughn Road), located approximately 200 feet from the closest boundary of the Big Rock 2 Cluster North site. However, according to the California Department of Education's California School Directory, Westside Elementary School closed on June 30, 2012 (California Department of Education 2017). 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?

As previously discussed above, the environmental database search identified 13 mapped listings for 8 sites within the project site, and 11 listings within the 1-mile search buffer. However, the listings within the project site and many of the listings within the search buffer were determined to be incorrectly mapped and are actually outside of the project site based on further review. Therefore, 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 or a public use airport. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site. 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. No impact is identified for this issue area.

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 City of Calexico General Plan, Section 8.0 Safety Element, identifies the major evacuation routes as SR 111, SR 98, and I-8. The project is not expected to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The applicant for the proposed project will be required, through the Conditions of Approval, to prepare a road improvement plan for the proposed project that will include emergency access points and safe vehicular travel. Additionally, local building codes would be followed to minimize flood, seismic, and fire hazard. Therefore, the proposed project would result in a less than significant impact associated with the possible impediment to emergency response plans or emergency evacuation plans.

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 2022), 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). A Fire Management Plan will be prepared in accordance with Fire Department requirements for project construction activities as well as long-term operations, including establishing appropriate emergency access to the project site for first responders, and identifying project-specific onsite fire protection or suppression systems that comply with Imperial County requirements. The project will incorporate many fire safety features to be described in detail in the Fire Management

Plan, including access gates and service roads along the perimeter of the project designed to meet or exceed fire code specifications (e.g., road width, turnarounds, etc.), PV modules and ancillary equipment constructed of fire-resistant materials, non-flammable ground cover and perimeter barriers (as required) around electrical equipment, and both portable and fixed fire suppression systems.

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 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 project. At the end of a lithium-ion module's useful life (typically estimated to be 10 to 20+ years) and final project decommissioning, the batteries would be decommissioned and recycled per manufacturer guidelines. Certain manufacturers allow for the batteries to be returned to the manufacturing facility or a third-party recycling facility where the batteries are disassembled, and certain materials are recovered from the battery for reuse.

The operation of the solar facility would not generate hazardous wastes and therefore, implementation of applicable regulations and mitigation measures identified for construction and operations would ensure restoration of the project site to pre-project conditions during the decommissioning process in a manner that would be less than significant. Furthermore, decommissioning/restoration activities would not result in a potential impact associated with Airport Land Use Consistency Plan (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 area and pertinent local, state, and federal plans and policies. Each subsection includes descriptions of existing hydrology/drainage, existing flooding hazards, and the environmental impacts on hydrology and water quality resulting from implementation of the proposed project, and mitigation measures where appropriate. The impact assessment provides an evaluation of potential adverse effects to water quality based on criteria derived from the CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description. The information for this section is summarized from the *Aquatic Resources Delineation Report* and the *Water Supply Assessment* prepared by Dudek *(*Appendix E2 and J of this EIR, respectively).

3.10.1 Existing Conditions

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 is characterized as a closed basin and, therefore, all runoff generated within the watershed discharges into the Salton Sea (California RWQCB 2019).

As shown in Figure 3.10-1. the project site is contained within the Salton Sea Subbasin Hydrologic Unit Code (HUC 18100204). Within this watershed, the proposed project site overlaps with the Salt Creek Slough Subwatershed (HUC 181002040807) and the Upper New River Subwatershed (HUC 181002040902) within the New River Watershed (HUC 181002040902). The New River Watershed comprises approximately 328 square miles (209,920 acres) and contains the New River, which flows north from the United States/Mexico border, south of the site. The river flows approximately 66 miles across the Imperial Valley to its terminus in the Salton Sea. The Upper New River Subwatershed comprises approximately 7 square miles (4,480 acres) within the New River Watershed (Appendix E2 of this EIR).

The western portion of the project site overlaps with the Salt Creek Slough Subwatershed, a catchment area of 34 square miles (21,760 acres) that sits within the larger Coyote Wash Watershed, which directs intermittent flows eastward from the Jacumba Mountains and has an area of 340 square miles (217,600 acres) (Appendix E2 of this EIR).

Localized Drainage Conditions

The project site consists primarily of agricultural fields and unpaved roads, and all the project parcels have been extensively cleared, plowed, and maintained for agricultural production. Due to the extensive irrigated farming history within the project site and surrounding area, as well as locally high-water table, many irrigation canals and drains occur within proximity of the project. These include a segment of the New River adjacent to the northeast corner of the project, and the IID Westside Main Canal which is located along the west and southern edges of the project site. Lateral canals and ditches that intersect the project site include: Fern Side Main, Fig Canal, Fern Canal, Fern Lateral 2, Fern Lateral 3, Foxglove Canal, and Foxglove Lateral 1 (Figure 5 of Appendix J of this EIR).

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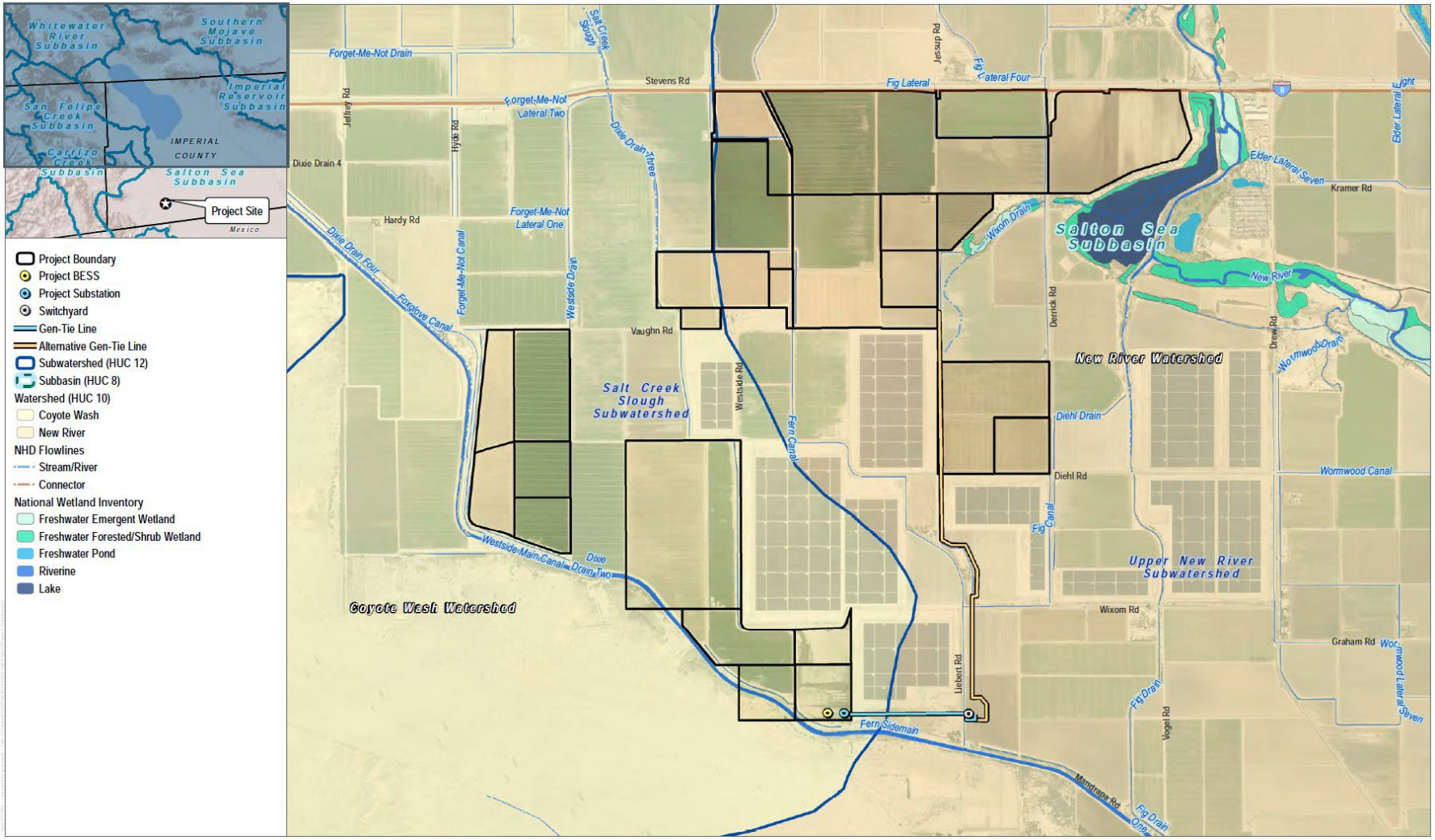
Figure 3.10-1. Watershed



Source: Appendix E2 of this EIR

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Flooding

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) (Map Numbers 06025C1700C and 06025C2050C) (FEMA 2008), the project site is 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. However, the northeastern portion of the project site is adjacent to the New River, which is within the 100-year floodplain, and subject to a 1 percent chance of annual flood risk (FEMA 2008).

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. There are no comprehensive water quality monitoring stations located within in the project site, and water quality data are limited.

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. Surface waters mostly drain towards the Salton Sea. The New and Alamo Rivers convey agricultural irrigation drainage, surface runoff, and some treated municipal waste from the Imperial Valley. The flow in the New River also contains agricultural drainage, treated and untreated sewage, and industrial waste discharges from Mexicali, Mexico (California RWQCB 2019).

Based on the 2020-2022 305(b)/303(d) Integrated Report prepared by the Colorado River Basin RWQCB, the water features in the project vicinity include the Imperial Valley Drains, New River, and the Salton Sea (California RWQCB 2022). Specific impairments listed for each of these water bodies (or Category 5) are identified below:

- Imperial Valley Drains: Impaired for Ammonia, chlordane, chlorpyrifos, dichlorodiphenyldichloroethylene (DDE), dichlorodiphenyltrichloroethane (DDT), dieldrin, disulfoton, imidacloprid, Polychlorinated biphenyls (PCBs), sedimentation/siltation, selenium, toxaphene, and toxicity.

- New River: Impaired for ammonia, bifenthrin, chlordane, chloride, chlorpyrifos, cyhalothrin, lambda, cypermethrin, dichlorodiphenyldichloroethane (DDD), DDE, DDT, diazinon, dieldrin, disulfoton, hexachlorobenzene/HCB, imidacloprid, indicator bacteria, malathion, mercury, naphthalene, nutrients, organic enrichment/low dissolved oxygen, PCBs, pyrethroids, sediment, selenium, toxaphene, toxicity, and trash.
- Salton Sea: Impaired for ammonia, arsenic, chloride, chlorpyrifos, DDE, DDT, enterococcus, low dissolved oxygen, nutrients, salinity, and toxicity (California RWQCB 2022).

Groundwater Hydrology

The project site overlies the Imperial Valley Groundwater Basin (Basin), which is designated by the Department of Water Resources (DWR) as a very low priority basin with respect to the Sustainable Groundwater Management Act. Accordingly, groundwater is not managed under a Groundwater Sustainability Plan. Groundwater usage is regulated by Imperial County's Groundwater Ordinance contained in Title 9, Division 22, of the Land Use Ordinance, Section 92201.01. The Basin is located in the southeastern part of California and extends from the Salton Sea south to the international border with Mexico. The Basin covers approximately 1,200,000 acres, or 1,870 square miles (Appendix J of this EIR).

Groundwater level data in the Basin are sparse, with the highest density and quality of measurements located in the eastern portion of the Basin where groundwater levels have historically been impacted by recharge, and subsequent lining, of the All-American canal. Near the project site, groundwater levels are monitored at two wells: 16S11E27F01S (located approximately 6 miles northwest of the project site) and 16S11E23B01S (located approximately 5 miles northwest of the project site).

Well 16S11E27F01S is completed to a depth of 134.5 feet below ground surface. Groundwater at this well is encountered at a depth of approximately 100 feet below ground surface. Groundwater levels measured at this well have declined by about 3 feet over the past 50 years. Well 16S11E23B01S is completed to a depth of 114.7 feet below ground surface. Groundwater at this well is encountered at a depth of approximately 50 feet below ground surface. Historical groundwater level measurements indicate that groundwater levels at this well experienced a period of decline in the later 1980s to early 1990s. During this time, groundwater levels declined by approximately 10 feet. Since the mid- to late-1990s, groundwater levels have declined by approximately 2 feet (Appendix J of this EIR).

Groundwater level measurements at wells 16S11E27F01S and 16S11E23B01S indicate that groundwater levels, which are a proxy for the volume of groundwater in storage, within the vicinity of the project site have historically been, and are currently, stable. Because groundwater development opportunities in the Basin are limited, groundwater storage and levels in the vicinity of the project site are not expected to experience large changes from current conditions.

Groundwater in the Basin is generally of poor quality and unsuitable for most domestic and irrigation uses. The primary groundwater quality concern is total dissolved solids. Additional constituents that occur at concentrations that are higher than recommended for drinking water include nitrate, fluoride, sulfate, boron, and selenium (Appendix J of this EIR).

Precipitation

The project area is characterized by a typical desert climate with dry, warm winters, and hot, dry summers. The project area receives an average of 2.56 inches of precipitation annually (Appendix E2 of this EIR).

3.10.2 Regulatory Setting

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, New River, 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	New River	Salton Sea
AQUA	--	--	X
FRSH	X	X	--
IND	--	P	P
REC I	X	X	X
REC II	X	X	X
WARM	X	X	X
WILD	X	X	X
RARE	X	X	X

Source: SWRCB 2021

Table 3.10-1. Beneficial Uses of Receiving Waters

Beneficial Uses	Imperial Valley Drains	New River	Salton Sea

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 3.10-3 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 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 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.
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 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 the NPDES General Construction Permit and 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 project 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 project applicant 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 1997

County of Imperial Land Use Ordinance, Title 9

The County's Ordinance Code provides specific direction for the protection of water resources. Applicable ordinance requirements are contained in Division 10, Building, Sewer and Grading Regulations, and summarized below.

Chapter 10 – Grading Regulations. Section 91010.02 of the Ordinance Code outlines conditions required for issuance of a Grading Permit. These specific conditions include:

1. If the proposed grading, excavation or earthwork construction is of irrigatable land, said grading will not cause said land to be unfit for agricultural use.
2. The depth of the grading, excavation or earthwork construction will not preclude the use of drain tiles in irrigated lands.
3. The grading, excavation or earthwork construction will not extend below the water table of the immediate area.
4. Where the transition between the grading plane and adjacent ground has a slope less than the ratio of 1.5 feet on the horizontal plane to 1 foot on the vertical plane, the plans and specifications will provide for adequate safety precautions.

Imperial County Engineering Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans within Imperial County

Based on the guidance contained in the County's *Engineering Guidelines Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans within Imperial County* (2008), the following drainage requirements would be applicable to the project.

III A. GENERAL REQUIREMENTS

1. All drainage design and requirements are recommended to be in accordance with the IID "Draft" Hydrology Manual or other recognized source with approval by the County Engineer and based on full development of upstream tributary basins. Another source is the Caltrans I-D-F curves for the Imperial Valley.

3. Permanent drainage facilities and ROW, including access, shall be provided from development to point of satisfactory disposal.

4. Retention volume on retention or detention basins should have a total volume capacity for a three (3) inch minimum precipitation covering the entire site with no C reduction factors. Volume can be considered by a combination of basin size and volume considered within parking and/or landscaping areas.

   There is no guarantee that a detention basin outletting to an IID facility or other storm drain system will not back up should the facility be full and unable to accept the project runoff. This provides the safety factor from flooding by ensuring each development can handle a minimum 3-inch precipitation over the project site.

8. The developer shall submit a drainage study and specifications for improvements of all drainage easements, culverts, drainage structures, and drainage channels to the Department of Public Works for approval. Unless specifically waived herein, required plans and specifications shall provide a drainage system capable of handling and disposing of all surface waters originating within the subdivision and all surface waters that may flow onto the subdivision from adjacent lands. Said drainage system shall include any easements and structures required by the Department of Public Works or the affected Utility Agency to properly handle the drainage on-site and off-site. The report should detail any vegetation and trash/debris removal, as well as address any standing water.

9. Hydrology and hydraulic calculations for determining the storm system design shall be provided to the satisfaction of the Director, Department of Public Works. When appropriate, water surface profiles and adequate field survey cross-section data may also be required.

11. The County is implementing a storm water quality program as required by the SWRCB, which may modify or add to the requirements and guidelines presented elsewhere in this document. This can include ongoing monitoring of water quality of storm drain runoff, implementation of BMPs to reduce storm water quality impacts downstream or along adjacent properties. Attention is directed to the need to reduce any potential of vectors, mosquitoes, or standing water.

12. A Drainage Report is required for all developments in the County. It shall include a project description, project setting including discussions of existing and proposed conditions, any drainage issues related to the site, summary of the findings or conclusions, off-site hydrology, onsite hydrology, hydraulic calculations and a hydrology map.

Imperial Irrigation District

The IID is an irrigation district organized under the California Irrigation District Law, codified in Section 20500 et seq. of the California Water Code. Critical functions of IID include diversion and delivery of Colorado River water to the Imperial Valley, operation and maintenance of the drainage canals and facilities, including those in the project area, and generation and distribution of electricity. Several policy documents govern IID operations and are summarized below:

- The Law of the River and historical Colorado River decisions, agreements and contracts
- The Quantification Settlement Agreement and Transfer Agreements

- The Definite Plan, now referred to as the Systems Conservation Plan, which defines the rigorous agricultural water conservation practices being implemented by growers and IID to meet the Quantification Settlement Agreement commitments
- The Equitable Distribution Plan, which defines how IID will prevent overruns and stay within the cap on the Colorado River water rights
- Existing IID standards and guidelines for evaluation of new development and define IID's role as a responsible agency and wholesaler of water

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 2012).

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.

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 includes site preparation, foundation construction, erection of major equipment and structures, installation of electrical systems, control systems, and startup/testing. In addition, the construction of transmission lines, utility pole pads, conductors, and associated structures will be required.

During the construction phase, sedimentation and erosion can occur because of tracking from earthmoving equipment, erosion and subsequent runoff of soil, or improperly designed stockpiles. The utilization of proper erosion and sediment control BMPs is critical in preventing discharge to surface waters/drains. The project would employ proper SWPPP practices to minimize any discharges in order to meet the Best Available Technology/Best Conventional Technology standard set forth in the Construction General Permit.

The project has the potential to affect surface water quality. Many different types of hazardous compounds will be used during the construction phase, with proper application, management, and containment being of high importance. Poorly managed construction materials can lead to the possibility for exposure of potential contaminants to precipitation. When this occurs, these visible and/or non-visible constituents become entrained in storm water runoff. If they are not intercepted or are left uncontrolled, the polluted runoff would otherwise freely sheet flow from the project to the IID Imperial Valley Drains and could result in the accumulation of these pollutants in the receiving waters. This is considered a potentially significant impact. With the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the project would be reduced to a 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 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.

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. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction 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 storm water 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.

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.

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.

Table 3.10-3. Source Control Best Management Practices

Design Concept		Description
7	Integrated Pest Management	Reduce the need for pesticide use on site 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 off site whenever possible. If servicing is required on site, it must be conducted in an area isolated from storm drain inlets or drainage ditch inlets. The area must be bermed and precluded from run-on. Any spillage must be fully contained and captured and disposed of per County of Imperial Hazardous Waste requirements.
9	Waste Handling and Disposal	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.

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 BMPs into Project Drainage Plan.** The project Drainage Plan shall adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. Infiltration basins will be integrated into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary. The Drainage Plan shall be submitted to the County of Imperial Department of Public Works for review and approval.

Significance after Mitigation

With the implementation of Mitigation Measure HYD-1, impacts on surface water quality as attributable to the project would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Monitoring and contingency response measures would be included to verify compliance with water quality objectives for all surface waters crossed during construction.

With the implementation of Mitigation Measure HYD-2, potential water quality impacts resulting from post-construction discharges during operation for the 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 drainage plan. The use of source control, site design, and treatment BMPs would result in a decrease 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?***

The proposed project would not require the construction of a groundwater well and/or the direct use of groundwater for construction or operation. As described in Chapter 2 Project Description, water would be picked up from a nearby canal or lateral and delivered to the construction location by a water truck capable of carrying approximately 4,000 gallons per load. For this reason, the project

would not carry the potential to create drawdown effects that could otherwise adversely affect adjacent wells.

Further, groundwater recharge in the area will not be significantly affected as the majority of the project site will feature a pervious landscape in both the existing and proposed conditions. Any runoff from solar panel washing would evaporate or percolate through the ground, as a majority of the surfaces in the solar field would remain pervious. The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. No significant impacts on groundwater supply or recharge would occur.

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 project 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 (ICAPCD Rule 801); and compliance with the NPDES General Construction Permit. Additionally, with implementation of Mitigation Measure HYD-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

After construction is complete, all existing roads would be left in a condition equal to or better than their pre-construction condition. All other areas disturbed by construction activities would be recontoured and decompacted. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that erosion increases when compared to existing conditions. The project site would remain largely pervious over the operational life of the project. Additionally, the project would implement site design BMPs, as outlined in Table 3.10-3, which would reduce soil disturbance during operation. 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.

Mitigation Measure(s)

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

Significance after Mitigation

With the implementation of Mitigation Measure HYD-1, potential impacts associated with the alteration of drainage patterns resulting in substantial erosion or siltation on- or off-site would be reduced to a level less than significant through compliance with County standards, implementation of a Dust Control Plan (ICAPCD Rule 801), and compliance with the NPDES General Construction Permit and project-specific SWPPP.

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 implementation would not substantially alter the existing drainage pattern of the site or area. The majority of the project site would continue to sheet flow through the pervious native soils. The project will be designed to meet County of Imperial storage requirements (100 percent of the 100-year storm (3 inches of rain)) (refer to the County's *Engineering Guidelines Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans within Imperial County* (2008) for storm water runoff, which will result in an impoundment of runoff in excess of the anticipated volume of runoff to be generated by the 100-year storm event. Additionally, implementation of Mitigation Measure HYD-2 requires that the project's Drainage Plan adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems. As such, infiltration basins will be integrated into the Drainage Plan to the maximum extent practical. The Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and management of runoff generated from project impervious surfaces as necessary.

Operation

Additionally, after construction is complete, all existing roads would be left in a condition equal to or better than their preconstruction condition. All other areas disturbed by construction activities would be recontoured and decompacted. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that flooding (on- or off-site) increases when compared to existing conditions. Lastly, the project site would remain largely impervious over the operational life of the project. Therefore, the proposed project would result in no significant impacts associated with the alteration of drainage patterns resulting in on- or off-site flooding.

Mitigation Measure(s)

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

Significance after Mitigation

With the implementation of Mitigation Measure HYD-2, impacts on existing drainage patterns as a result of potentially substantial increases to runoff would be reduced to a level less than significant. Implementation of Mitigation Measure HYD-2 would require the project's Drainage Plan to adhere to the County's Engineering Guidelines Manual, IID "Draft" Hydrology Manual, or other recognized source with approval by the County Engineer to control and manage the on- and off-site discharge of stormwater to existing drainage systems.

Impact 3.10-5 ***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 implementation would not substantially alter the existing drainage pattern of the site or area. During construction, erosion and associated pollutants would be controlled in accordance with County standards which include preparation, review and approval of a grading plan by the County Engineer; implementation of a Dust Control Plan (ICAPCD Rule 801); and compliance with the NPDES General Construction Permit and project-specific SWPPP, as outlined in Mitigation Measure HYD-1 (see Impact 3.10-1 for additional details).

Operation

After construction is complete, all existing roads would be left in a condition equal to or better than their preconstruction condition. All other areas disturbed by construction activities would be recontoured and decompacted. The proposed project is not anticipated to generate a significant increase in the amount of runoff water when compared to existing conditions. As such, daily operations and routine maintenance (such as occasional PV panel washing) are not anticipated to alter the existing drainage pattern such that runoff increases would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The project site would remain largely impervious over the operational life of the project. Water will continue to percolate through the ground, as a majority of the surfaces on the Project site will remain pervious. 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.

Mitigation Measure(s)

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

Significance after Mitigation

With the implementation of Mitigation Measure HYD-1, impacts on the existing drainage pattern by the project that could result in substantial or polluted runoff would be reduced to a level less than significant through compliance with County standards, implementation of a Dust Control Plan

(ICAPCD Rule 801), and compliance with the NPDES General Construction Permit and project-specific SWPPP.

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?

Project implementation would not substantially alter the existing drainage pattern of the site or area. 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 will remain pervious.

According to the FEMA's FIRM (Map Numbers 06025C1700C and 06025C2050C) (FEMA 2008), the project site is 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. Although the northeastern portion of the project site is adjacent to the New River, which is within the 100-year floodplain, and subject to a 1 percent chance of annual flood risk, no structures would be placed within this zone. 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 impacts would be less than significant.

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 not located near any large bodies of water. The Salton Sea is located over 20 miles north of the project site. Because of the distance, the Salton Sea does not pose a 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. No impact would occur.

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 project would be reduced to a less than significant level through the inclusion of focused BMPs for the protection of surface water resources. Implementation of Mitigation Measure HYD-2 would require the project to incorporate post-construction BMPs into the project's Drainage Plan. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. Additionally, the project would not require the direct use of groundwater. Therefore, the proposed project would not

pose a significant threat to local surface water features or shallow groundwater resources, and, as such would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Implementation of Mitigation Measures HYD-1 and HYD-2 would reduce impacts to a level less than significant.

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 water quality impacts resulting during construction and operation of the 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 or mudflows.

Residual

With implementation of the mitigation measures listed above, implementation of the project would not result in any residual significant impacts related to increased risk of flooding from stormwater runoff, from water quality effects from long-term urban runoff, or from short-term alteration of drainages and associated surface water quality and sedimentation. With the implementation of the required mitigation measures during construction and decommissioning of the project, water quality impacts would be minimized to a less than significant level. Based on these circumstances, the project would not result in any residential significant and unmitigable adverse impacts on surface water hydrology and water quality.

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3.11 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 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 on approximately 1,849 acres of privately-owned land in the unincorporated area of Imperial County, California. The proposed project is located south of Interstate 8, approximately one mile southwest of the townsite of Seeley, and approximately six miles north of the United States International Border with Mexico.

The project site consists primarily of agricultural fields and unpaved roads, and all the project parcels have been extensively cleared, plowed, and maintained for agricultural production. Due to the extensive irrigated farming history within the project site and surrounding area, as well as locally high-water table, many irrigation canals and drains occur within proximity of the project. These include a segment of the New River adjacent to the northeast corner of the project, and the IID Westside Main Canal which is located along the west and southern edges of the project site.

The project site is adjacent and proximal to both Agricultural and Agricultural/Rural lands that have been rezoned for renewable energy development, specifically for PV solar and BESS projects that have been approved by Imperial County. Campo Verde Solar, owned by Southern Power, became operational in September 2013 and is located on multiple APNs that are adjacent to the project site.

Nearby land uses are predominantly agricultural and/or renewable energy generation, but also include commercial, transportation, military, and electric utility uses. Commercial land uses include the Rio Bend Golf Course to the east of the project. The I-8 and Union Pacific Railroad transportation corridors are located to the north of the project. To the south of the project site, utility land uses include the SDG&E Imperial Valley Substation, as well as additional agricultural lands that have been designated for PV solar, and BESS renewable energy projects.

The project applicant is seeking approval of four separate CUPs associated with the construction and operation of a utility-scale PV solar energy generation and BESS facility, which together define the project site. The four CUP applications or individual site locations consists of the following:

- Big Rock 2 Cluster North: CUP 24-0006
- Big Rock 2 Cluster South: CUP 24-007
- Big Rock 2 Cluster East: CUP 24-0008
- Big Rock 2 Cluster West: CUP 24-0009

The entire project site comprises 1,849 acres of privately-owned land, comprising 24 assessor parcels. Table 3.11-1 identifies the individual APNs associated with the project site with their respective acreage, and zoning.

Table 3.11-1. Project Assessor Parcel Numbers, Acreages, and Zoning

Name	APN	Zoning	Acreage
Big Rock 2 Cluster North (CUP #24-0006)	051-270-020	A-2-R	101.8
	051-270-028	A-2	52.3
	051-270-036	A-2	67.4
	051-270-041	A-2-R	279.0
	051-280-054	A-2	149.5
	051-300-011	A-2	79.6
	051-300-016	A-2	10.8
	051-300-026	A-2	13.4
	051-300-035	A-3	40.3
	051-300-037	A-3	28.9
	051-300-032 (northern portion)	A-2	85.5
	Subtotal		***910.0***
	Laurel 2 North CUP #21-0014 (Expires December 2024)		
	051-300-032 (southern portion) (to be re-entitled)	A-2-RE	80.0
	051-300-036 (to be re-entitled)	A-3-RE	40.3
	Subtotal Big Rock Cluster North		***1,030***
Big Rock 2 Cluster South (CUP 24-007)	051-330-003	A-3	246.5
	051-350-004	A-3	57.4
	051-350-006	A-3	26.3
	051-350-007	A-3	40.0
	051-350-008	A-3	40.0
	Subtotal Big Rock Cluster North		***410.0***

Big Rock 2 Cluster East (CUP 24-008)	051-310-027	A-2-R-RE	120.0
	051-310-028	A-2-R-RE	39.9
	Subtotal Big Rock Cluster East		***160.0***
Big Rock 2 Cluster West (CUP 24-009)	051-290-018	A-2-R	79.8
	051-290-019	A-3	48.7
	051-320-005	A-3	45.0
	051-320-006	A-3	39.9
	051-320-007	A-3	35.3
	Subtotal Big Rock Cluster West		***249.0***
TOTAL ACREAGE			**1,849**

Notes:
APN=Assessor Parcel Number; A-2=General Agriculture; A-2-R=General Agriculture/Rural; A-3=Heavy Agriculture; RE=Renewable Energy

Big Rock 2 Cluster North

The Big Rock 2 Cluster North site is located on 13 parcels comprising approximately 1,030 acres. Table 3.11-1 identifies the individual APNs associated with the Big Rock 2 Cluster North site with their respective acreage and zoning. As shown in Figure 3.11-1, the Big Rock 2 Cluster North site is designated as Agriculture under the County's General Plan. As shown in Table 3.11-1 and Figure 3.11-2, the parcels associated with the Big Rock 2 Cluster North site are zoned A-2 (General Agriculture), A-2-RE (General Agriculture with a RE Overlay Zone), A-2-R (General Agriculture Rural), A-3 (Heavy Agriculture), and A-3-RE (Heavy Agriculture with a RE Overlay Zone).

Big Rock 2 Cluster South

The Big Rock 2 Cluster South site is located on five parcels comprising approximately 410 acres. Table 3.11-1 identifies the individual APNs associated with the Big Rock 2 Cluster South site with their respective acreage and zoning. As shown in Figure 3.11-1, the Big Rock 2 Cluster South site is designated as Agriculture under the County's General Plan. As shown in Table 3.11-1 and Figure 3.11-2, the parcels associated with the Big Rock 2 Cluster South site are zoned A-3 (Heavy Agriculture).

Big Rock 2 Cluster East

The Big Rock 2 Cluster East site is located on two parcels comprising approximately 160 acres. Table 3.11-1 identifies the individual APNs associated with the Big Rock 2 Cluster East site with their respective acreage and zoning. As shown in Figure 3.11-1, the Big Rock 2 Cluster East site is designated as Agriculture under the County's General Plan. As shown in Table 3.11-1 and Figure 3.11-2, the parcels associated with the Big Rock 2 Cluster East site are zoned A-2-R-RE (General Agriculture Rural with RE Overlay Zone).

Big Rock 2 Cluster West

The Big Rock 2 Cluster West site is located on five parcels comprising approximately 249 acres. Table 3.11-1 identifies the individual APNs associated with the Big Rock 2 Cluster West site with their respective acreage and zoning. As shown in Figure 3.11-1, the Big Rock 2 Cluster West site is designated as Agriculture under the County's General Plan. As shown in Table 3.11-1 and Figure 3.11-2, the parcels associated with the Big Rock 2 Cluster West site are zoned A-2-R (General Agriculture Rural) and A-3 (Heavy Agriculture).

Renewable Energy Overlay Zone

As discussed in Chapter 2, the County adopted the Renewable Energy and Transmission Element, which includes a RE Zone (RE Overlay Map). The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. As shown in Table 3.11-1 and Figure 3.11-2, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the remaining portions of the project site into the RE Overlay Zone. No land use amendment is requested, and the underlying "Agriculture" General Plan designation would remain.

Residential Communities

There are no established residential neighborhoods immediately adjacent to the project site. One residence is located within the central portion of the Big Rock 2 Cluster North Site, in the southwest corner of the Jessup Road/W Campbell Road intersection. The following are off-site rural residences located in the vicinity of the project site:

- Residence located near the northeastern corner of the Big Rock 2 Cluster West site (north of West Vaughn Road)
- Residence located near the northeastern corner of the Big Rock 2 Cluster East site (west of Derrick Road)
- Residence located at the southwest corner of the Vogel Road/W Wixom Road intersection

Nearby Airports

There are no public airports or public use airports located within two miles of the project site. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site.

Figure 3.11-1. General Plan Land Use Designations

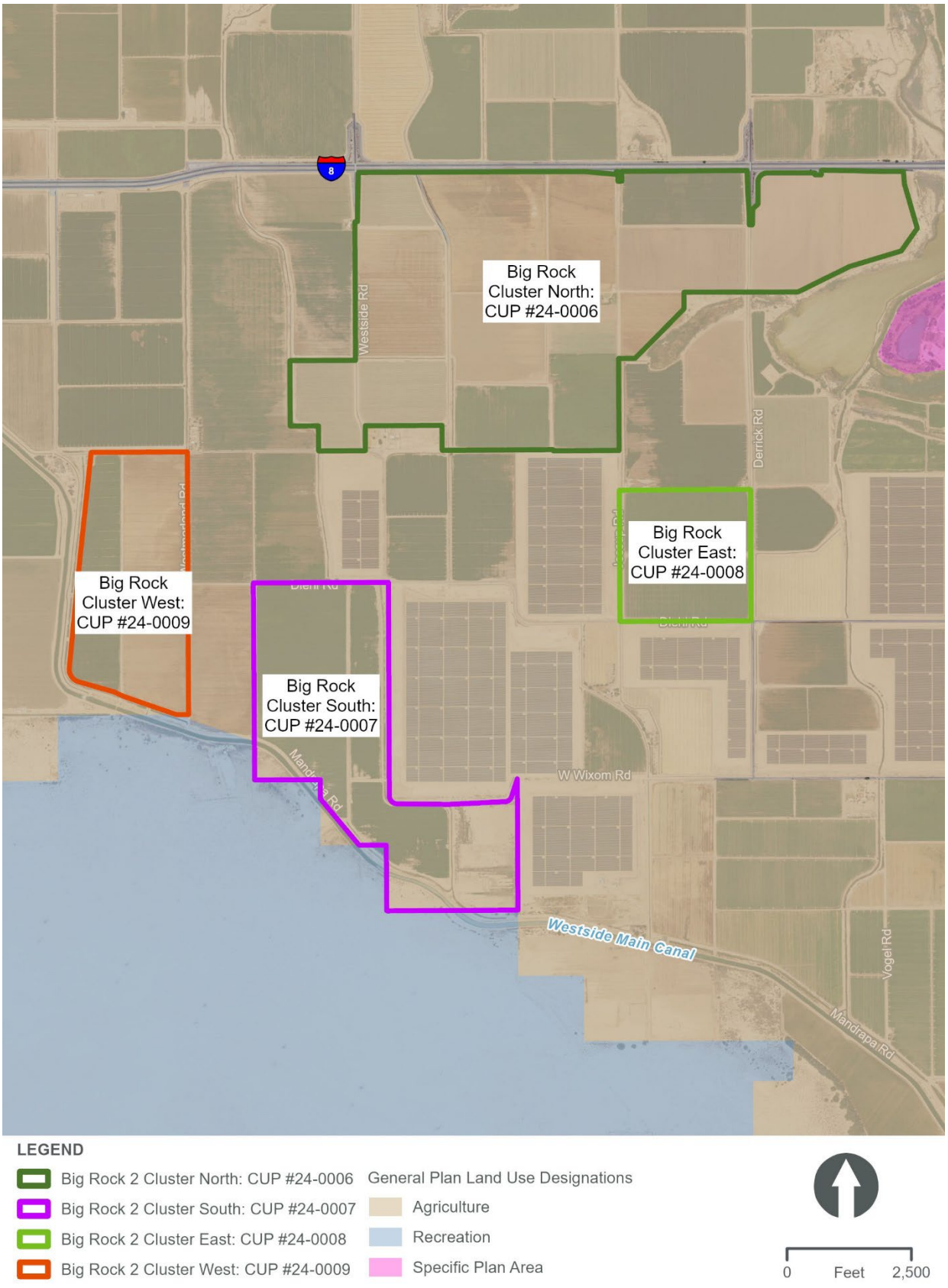

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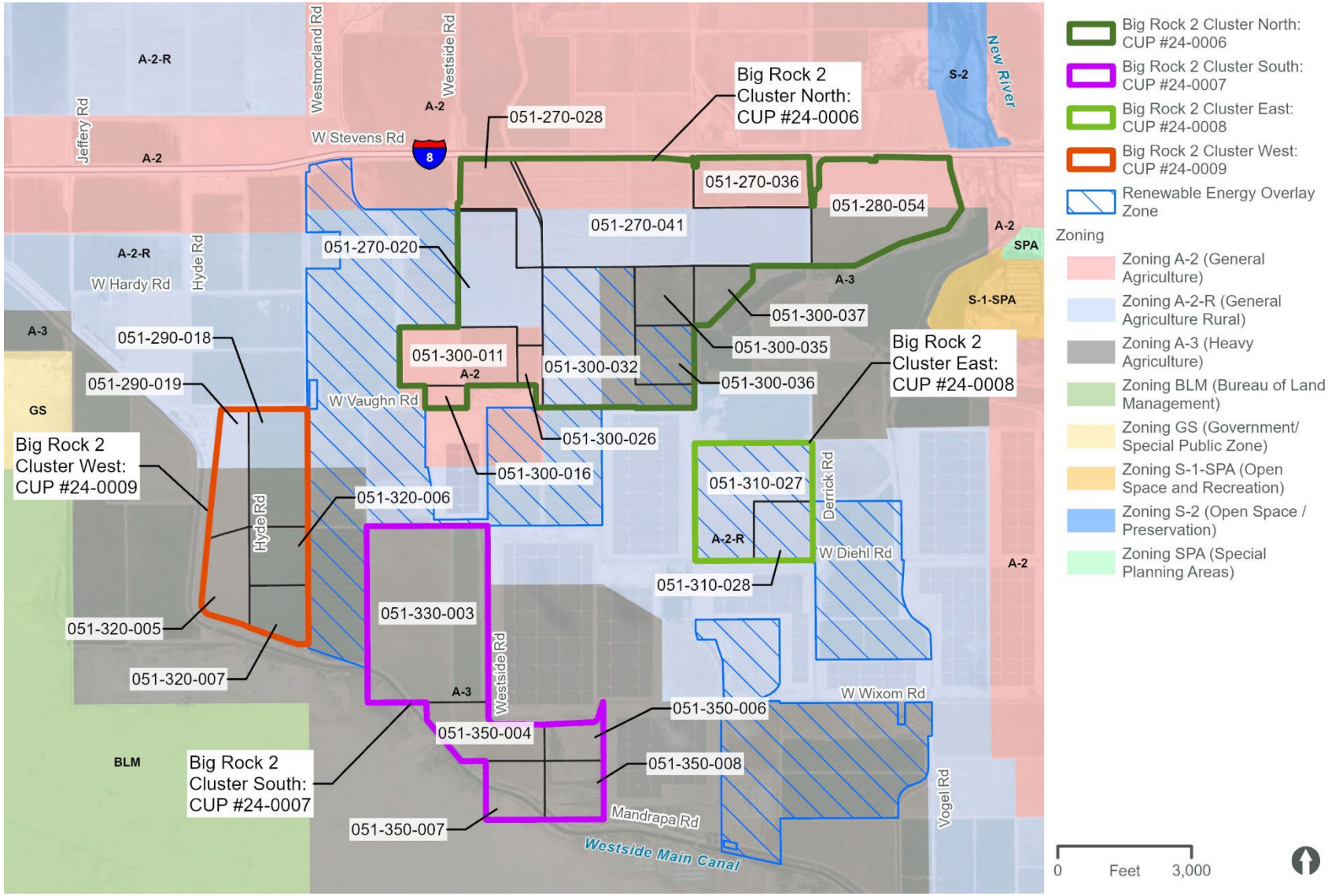
Figure 3.11-2. Zoning Designations



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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 on the County's abundant natural, cultural, and economic resources can be avoided. The following 10 elements comprise the County's General Plan: Land Use; Housing; Circulation and Scenic Highways; Noise; Seismic and Public Safety; Conservation and Open Space; Agricultural; Renewable Energy and Transmission Element; Water; and Parks and Recreation. Together, these elements satisfy the seven mandatory general plan elements as established in the California Government Code. Goals, objectives, and implementing policies and actions programs have been established for each of the elements.

Imperial County received funding from the CEC's Renewable Energy and Conservation Planning Grant to amend and update the County's General Plan in order to facilitate future development of renewable energy projects. The Geothermal/Alternative Energy and Transmission Element was last updated in 2006. Since then, there have been numerous renewable projects proposed, approved and constructed within Imperial County as a result of California's move to reduce greenhouse gas emissions, develop alternative fuel sources and implement its Renewable Portfolio Standard. The County has recently prepared an update to the Geothermal/Alternative Energy and Transmission Element of its General Plan, called the Renewable Energy and Transmission Element. This Element is designed to provide guidance and approaches with respect to the future siting of renewable energy projects and electrical transmission lines in the County. The County adopted this element in 2016.

The RE and Transmission Element includes a RE Zone (RE Overlay Map). The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of RE projects, with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of RE facilities while minimizing the impact to other established uses. As shown in Table 3.11-1 and Figure 3.11-2, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone.

An analysis of the project's consistency with the General Plan goals and objectives relevant to the project is provided in Table 3.11-2. 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 3.11-2. 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 project includes the necessary supporting infrastructure and would not require new community-based infrastructure. The project would be required to construct supporting drainage consistent with County requirements and mitigation measures prescribed in Section 3.10, Hydrology/Water Quality, of the EIR. Once the project is operational, water would be required for solar panel washing, fire protection, and domestic use (within the O&M building only). The project site is within the IID's boundary and therefore, would receive water service from the IID. Water demand for the proposed project is expected to be less than current water demands to support irrigated agriculture.
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 Renewable Energy Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. The County's General Plan and Land Use Ordinance allows that for renewable energy projects proposed on land classified in a non-RE Overlay zone, that the land on which the project is located may be included/classified in the RE Overlay Zone if the renewable energy project: 1) would be located adjacent to an existing RE Overlay Zone; 2) is not located in a sensitive area; 3) is located in proximity to renewable energy infrastructure; and, 4) and would not result in any significant environmental impacts. As shown in Table 3.11-1 and Figure 3.11-2, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the remaining project parcels into the RE Overlay Zone. With the approval of the General Plan Amendment, CUPs, and zone change the proposed project can be implemented.

Applicable Policies	Consistency Determination	Analysis
Public Facilities, Objective 8.9. Require necessary public utility rights-of-way when appropriate.	Consistent	The project would include the dedication of necessary ROW 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 project would include limited operational vehicle trips and would not be expected to reduce the current level of service at affected intersections, roadway segments, and highways. The project does not propose any forms for residential or commercial development and therefore would not require new forms of alternative transportation to minimize impacts on existing roadways.
Safe, Convenient, and Efficient Transportation System, Objective 1.2. Require a traffic analysis for any new development which may have a significant impact on County roads.	Consistent	As described in Section 3.13, Transportation, a traffic study was prepared for the project and demonstrated that project operations would have a less than significant impact on the circulation network.
Noise Element		
Noise Environment. *Objective 1.3*. Control noise levels at the source where feasible.	Consistent	Where construction-related and operational noise would occur in close proximity to noise sensitive land uses (e.g. less than 500 feet), the County would condition the project to maintain conformance with County noise standards.
Project/Land Use Planning. *Goal 2:* Review Proposed Actions for noise impacts and require design which will provide acceptable indoor and outdoor noise environments.	Consistent	The project would be required to comply with the County's noise standards during both construction and operation.

Applicable Policies	Consistency Determination	Analysis
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 agricultural 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 sensitive biological resources located within the project site. However, with the implementation of mitigation identified in Section 3.5, Biological Resources, these impacts would be reduced to a level less than significant.
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 resource inventory report was prepared for the project site. As discussed in Section 3.6, Cultural Resources, the proposed project has the potential to encounter undocumented archaeological resources and human remains. Mitigation Measures CUL-1 through CUL-3 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 applicant 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.
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.

Applicable Policies	Consistency Determination	Analysis
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 Air Quality Measures (Mitigation Measure AQ-2). Therefore, the proposed project is consistent with this objective.
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 project applicant would cooperate with all federal and State agencies in the effort to attain air quality objectives through compliance with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard Air Quality Measures (Mitigation Measure AQ-2). 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 in Figure 3.11-2, the majority of the project site is located outside of the RE Overlay Zone. The project applicant is requesting a General Plan Amendment and Zone Change to include/classify the remaining project parcels into the RE Overlay Zone. With the approval of the General Plan Amendment, Zone Change, and four CUPs, the proposed project can be implemented.
Renewable Energy and Transmission Element		
Objective 1.4: Analyze potential impacts on agricultural, natural, and cultural resources, as appropriate.	Consistent	This EIR has been prepared to meet the requirements of CEQA for purposes of evaluating the potential environmental impacts associated with the proposed project, which includes analysis on applicable environmental topics that analyze impacts on agricultural, natural, and cultural resources.
Objective 1.5: Require appropriate mitigation and monitoring for environmental issues associated with developing renewable energy facilities.	Consistent	Please refer to Section 3.3, Agricultural Resources, for a description of existing agricultural resources within the project site and a discussion of potential impacts attributable to the project. A biological technical report has been prepared for the project, which is summarized in Section 3.5, Biological Resources, along with potential impacts attributable to the project. With incorporation of mitigation identified in Sections 3.3, Agricultural Resources and 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	Water use during construction would be used primarily for dust control, and obtained from local IID irrigation canals or laterals in conformance with IID construction water acquisition requirements. The project applicant will also coordinate with IID to purchase water needed for maintenance activities (i.e. PV module washing) to ensure efficient use of water resources.

Applicable Policies	Consistency Determination	Analysis
Objective 1.7: Assure that development of renewable energy facilities and transmission lines comply with Imperial County Air Pollution Control District's regulations and mitigation measures.	Consistent	Because of the minimal grading of the site during construction and limited travel over the site during operations, local vegetation is anticipated to remain largely intact which will assist in dust suppression. Furthermore, dust suppression will be implemented including the use of water and soil binders during construction. Section 3.4, Air Quality, discusses the project's consistency with the ICAPCD in more detail.
Objective 2.1: To the extent practicable, maximize utilization of IID's transmission capacity in existing easements or rights-of-way. Encourage the location of all major transmission lines within designated corridors easements, and rights-of-way.	Consistent	The project involves the construction and operation of new renewable energy infrastructure that would interconnect with existing and approved IID transmission infrastructure thereby maximizing the use of existing facilities.
Seismic and Public Safety Element		
Land Use Planning and Public Safety. Goal 1: Include public health and safety considerations in land use planning.	Consistent	Division 5 of the County Land Use Ordinance has established procedures and standards for development within earthquake fault zones. Per 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. With implementation of the 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.		

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 and BESS project and does not include the development of housing.		

Source: ICPDS 2008
AQAP = air quality attainment plan; CUP = conditional use permit; EIR = environmental impact report; GV = growth visioning; ICAPCD = Imperial County Air Pollution Control District; IID = Imperial Irrigation District; MW = megawatt; RE = renewable energy' ROW = right-of-way;

County of Imperial Land Use Ordinance

The County's Land Use Ordinance provides the physical land use planning criteria for development within the jurisdiction of the County. The Land Use Ordinance identifies the permitted and conditional uses within a zoning designation. Uses identified as conditionally permitted require a CUP, which is subject to the discretionary approval of the County Board of Supervisors per a recommendation by the County Planning Commission.

A-2 Zoning. As shown in Table 3.11-1 and Figure 3.11-2, portions of the project site are zoned A-2, A-2-RE, A-2-R, and A-2-R-RE. Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.

- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*
- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

Height Limit in A-2 Zone. Section 90508.07 of the Land Use Ordinance limits the height of all non-residential structures and specifically states in Section 90508.07(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 ALUC plan."

A-3 Zoning. As shown in Table 3.11-1 and Figure 3.11-2, portions of the project site are zoned A-3 and 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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

Height Limit in A-3 Zone. 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 ALUC plan."

RE Resources. According to Title 9, Division 17 of the Land Use Ordinance, the purpose of the RE Resources regulations are to "facilitate the beneficial use of renewable energy resources for the general welfare of the people of Imperial County and the State of California; to protect renewable energy resources from wasteful or detrimental uses; and to protect people, property, and the environment from detriments that might result from the improper use of renewable energy resources" (County of Imperial 2017).

Title 9, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects, with an approved CUP. Uses that are conditionally permitted require a CUP subject to the discretionary approval of the County Board of Supervisors (Board) per a recommendation by the County Planning Commission.

Imperial County Airport Land Use Compatibility Plan

The Imperial County Airport Land Use Compatibility Plan (ALUCP) provides the criteria and policies used by the Imperial County Airport Land Use Commission to assess compatibility between the principal airports in Imperial County and proposed land use development in the areas surrounding the airports. The ALUCP emphasizes review of local general and specific plans, zoning ordinances, and other land use documents covering broad geographic areas.

There are no public airports or public use airports located within two miles of the project site. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site. According to Figure 3G (Compatibility Map – Naval Air Facility El Centro) of the ALUCP, no portion of the project site is located within the Naval Air Facility El Centro land use compatibility zones (County of Imperial 1996).

3.11.3 Impacts and Mitigation Measures

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

Thresholds of Significance

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

- Physically divide an established community
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

Impact Analysis

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

The project site is located in a sparsely populated portion of Imperial County. There is a residence located within the central portion of the Big Rock 2 Cluster North Site, in the southwest corner of the Jessup Road/W Campbell Road intersection. There are two off-site rural residences located within 500 feet of the project site:

- One residence located near the northeastern corner of the Big Rock 2 Cluster West site (north of West Vaughn Road)
- One residence located near the northeastern corner of the Big Rock 2 Cluster East site (west of Derrick Road)

However, there are no established residential neighborhoods immediately adjacent to the project site. 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 us 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. As discussed in Section 3.3, Agricultural Resources, the project site is designated as Farmland of Statewide Importance and Prime Farmland.

The project would temporarily convert Prime Farmland, Farmland of Statewide Importance, and Unique Farmland 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 Prime Farmland, Farmland of Statewide Importance, and Unique Farmland 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, BESS, gen-tie line, and supporting infrastructure 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 3.11-2. As shown in Table 3.11-2, the proposed project would generally be consistent with the goals and objectives of the General Plan, with the exception of the RE and Transmission Element.

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, and as stated in the Renewable Energy and Transmission Element:

CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. An amendment to the overlay zone would only be approved by the County Board of Supervisors if a future renewable energy project met one of the following two conditions:

1) Adjacent to the Existing RE Overlay Zone: An amendment may be made to allow for development of a future renewable energy project located adjacent to the existing RE Overlay Zone if the project:
    - Is not located in a sensitive area
    - Would not result in any significant impacts
2) "Island Overlay": An amendment may be made to allow for development of a future renewable energy project that is not located adjacent to the existing RE Overlay Zone if the project:
    - Is located adjacent (sharing a common boundary) to an existing transmission source
    - Consists of the expansion of an existing renewable energy operation
    - Would not result in any significant environmental impacts.

As shown in Table 3.11-1 and Figure 3.11-2, APNs 051-300-032 and 051-300-036 (associated with the Big Rock 2 Cluster North site), and APNs 051-310-027 and 051-310-028 (associated with the Big Rock 2 Cluster East site) are located within the RE Overlay Zone. However, the majority of the project site is located outside of the RE Overlay Zone. Therefore, the project applicant is seeking a zone change to include/classify the remaining project parcels into the RE Overlay Zone (A-2-RE, A-2-R-RE, and A-3-RE) and approval of all four CUPs 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 adjacent to an existing RE Overlay Zone; therefore, the project would meet the criteria identified for the "Adjacent to the Existing RE Overlay Zone" to obtain approval of an amendment to the RE Overlay Zone. Table 3.11-3 provides an analysis of the project's consistency with the "Adjacent to the Existing RE Overlay Zone" criteria.

With approval of the General Plan Amendment and Zone Change, the project applicant will be able to request for approval of all four CUPs to allow the construction and operation of the proposed solar facility with integrated BESS.

Table 3.11-3. Project Consistency with "Adjacent to the Existing RE Overlay Zone" Criteria

Criteria	Criteria Met?
Is not located in a sensitive area?	The project site is not in a recognized species corridor or habitat linkage. However, portions of the project site are designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. The project would temporarily convert Prime Farmland, Farmland of Statewide Importance, and Unique Farmland 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 Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to non-agricultural uses. Furthermore, the project site is adjacent and proximal to both Agricultural and Agricultural/Rural lands that have already been rezoned for renewable energy development, specifically for PV solar and BESS projects that have been approved by Imperial County. Campo Verde Solar became operational in September 2013 and is located on multiple APNs that are adjacent to the project site. The project would be an expansion of existing renewable energy operation in the area.
Would not result in any significant environmental impacts?	As detailed in Sections 3.2 through 3.16 of this EIR, no unavoidable or unmitigable significant impacts were identified. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant. Therefore, the proposed project would not result in a residual significant impact.

EIR = environmental impact report; MW = megawatt; RE = renewable energy

County of Imperial Land Use Ordinance

Development of the solar energy facility, BESS, and supporting infrastructure is subject to the County's zoning ordinance. The project site is located on 24 privately-owned legal parcels zoned A-2, A-2-RE, A-2-R, A-2-R-RE, A-3, and A-3-RE.

Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*
- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc. (subject to requirements of this zone and Division 24; Section 92401 "Communications Facilities Ordinance" et al).*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

The proposed project may involve construction of transmission towers up to 200 feet in height. Per §90508.07 (within A-2 zone) and §90509.07 (within A-3 zone) "nonresidential structures and commercial communication towers shall not exceed one hundred twenty (120) feet in height ..." The proposed project would require a height variance(s) for any transmission structures that exceed this height limit. Therefore, with approval of the four CUPs and variance(s), the proposed project would

not conflict with the County's zoning ordinance. Therefore, the proposed project would not conflict with the County's zoning ordinance and impacts would be less than significant.

Imperial County Airport Land Use Compatibility Plan

As previously discussed above, the Naval Air Facility in El Centro is located approximately three miles northeast of the project site. According to Figure 3G (Compatibility Map – Naval Air Facility El Centro) of the ALUCP, no portion of the project site is located within the Naval Air Facility El Centro land use compatibility zones (County of Imperial 1996). Therefore, the proposed project would not conflict with the Imperial County ALUCP and no impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

3.11.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

No impacts on land use and planning are anticipated to occur during decommissioning and restoration of the project site. Decommissioning and restoration would not physically divide an established community or conflict with any applicable land use plan, policy, or regulation. Through the project's decommissioning and subsequent restoration to pre-project conditions, the uses of the project site (agricultural) would remain consistent with the General Plan and zoning designations of the site, which allow agricultural uses. Therefore, no impact is identified and no mitigation is required.

Residual

With mitigation as prescribed in other sections of this EIR, issues related to the conversion of Important Farmland to non-agricultural use would be mitigated and reduced to a less than significant level. Similarly, with the implementation of the four CUPs and reclamation plan to address post-project decommissioning, the project would generally be consistent with applicable federal, state, regional, and local plans and policies. Based on these circumstances, the project would not result in any residual significant and unmitigable land use impacts.

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3.12 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.

3.12.1 Existing Conditions

Noise is defined as unwanted sound. Pressure waves traveling through air exert a force registered by the human ear as sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level), which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Consequently, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 hertz and above 5,000 hertz to imitate the human ear's decreased sensitivity to low and extremely high frequencies. This emulation of the human ear's frequency sensitivity is referred to as A-weighting and is expressed in units of dBA. Frequency A weighting follows an international standard method of frequency de-emphasis and is typically applied to community noise measurements. In practice, the specific sound level from a source is measured using a meter incorporating an electrical filter corresponding to the A-weighting curve. All noise levels reported are A-weighted unless otherwise stated.

Noise Exposure and Community Noise

Community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources that constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. Community noise is constantly changing throughout the day because of short duration single event noise sources, such as aircraft flyovers, vehicle passbys, and sirens. These successive additions of sound to the community noise environment vary the community noise level from instant to instant. This requires the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below (Caltrans 1998):

- L_{eq}: the equivalent level (L_{eq}), s used to describe noise over a specified period of time, typically 1 hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).
- L_{max}: the instantaneous maximum noise level (L_{max}) for a specified period of time.
- L_{dn}: 24-hour day and night (L_{dn}) A-weighed noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10 p.m. and 7 a.m. is weighted (penalized) by adding 10 dB to take into account the greater annoyance of nighttime noises. Similar to L_{dn}, community noise equivalent Level (CNEL) adds a 5 dBA "penalty" for the evening hours

between 7 p.m. and 10 p.m. in addition to a 10 dBA penalty between the hours of 10 p.m. and 7 a.m.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

1. Subjective effects of annoyance, nuisance, dissatisfaction
2. Interference with activities such as speech, sleep, learning
3. Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial settings can experience noise in the last category. A satisfactory method for measuring the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction does not exist. However, a wide variation in individual thresholds of annoyance does exist, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted; i.e., the "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise would be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur (Caltrans 1998):

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived
- Outside of the laboratory, a 3 dBA change is considered a perceivable difference
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected
- A 10 dBA change is subjectively heard as approximately a doubling in loudness and can cause adverse response

These relationships occur in part because of the logarithmic nature of sound and the dB system. The human ear perceives sound in a nonlinear fashion hence the dB scale was developed. Because the dB scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dB, the combined sound level would be 53 dB, not 100 dB. Because of this sound characteristic, if there are two noise emission sources, one producing a noise level greater than 9 dB than the other, the contribution of the quieter noise source is negligible and the sum of the noise sources is that of the louder noise source.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites.

Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans 1998).

Existing Ambient Noise

The project site is comprised of 24 assessor parcels that are designated as A-2 (General Agriculture), A-2-R (General Agricultural Rural), A-2-R-RE (General Agricultural Rural - Renewable Energy Overlay), A-2-RE (General Agriculture - Renewable Energy Overlay), A-3 (Heavy Agriculture), and A-3-RE (Heavy Agriculture - Renewable Energy Overlay).

The project site is adjacent and proximal to both Agricultural and Agricultural/Rural lands that have been rezoned for renewable energy development, specifically for PV solar and BESS projects that have been approved by Imperial County. Campo Verde Solar, owned by Southern Power, became operational in September 2013 and is located on multiple APNs that are adjacent to the project site.

The predominant sources of noise in the project area includes vehicular traffic on local roads and highways and agricultural operations. Activities involving the use of heavy-duty equipment such as front-end loaders, forklifts, and diesel-powered trucks are common noise sources typically associated with agricultural uses. Noise typically associated with agricultural operations, including the use of heavy-duty equipment, can reach maximum levels of approximately 85 dBA at 50 feet (Caltrans 1998). With the soft surfaces characterizing the agricultural landscape, these noise levels attenuate to ~60 dBA at distances over 800 feet. Based on field observations of the project site, the existing noise environment is generally influenced by the noise produced from the following sources:

- Vehicle traffic along roadways including Derrick Road, Drew Road, Westside Road, Diehl Road, and I-8
- Agricultural operations throughout the project area including the operation of heavy equipment and vehicles

Based on the availability of a previously prepared noise study in conjunction with the approved Campo Verde Solar Project (SCH No. 2011111049) and the proximity of the measurements to the project site, the previously-acquired noise measurements are considered to be representative of existing conditions and appropriate for use in this EIR. Based on this circumstance, these measurements were used to characterize ambient noise conditions for the project site.

Noise measurements were taken at two monitoring locations at the Campo Verde Solar Project site. Monitoring Location 1 was located roughly 30 feet from Westside Road near the intersection of West Vaughn Road. Monitoring Location 2 was taken in the eastern portion of the Campo Verde Solar Project site approximately 30 feet from Drew Road at the intersection of West Diehl Road. The noise measurements were monitored for a time period of 15 minutes each. According to the Campo Verde Solar Project Final EIR (SCH No. 2011111049), the ambient L_{eq} noise levels measured in the area of the project during the late morning and mid-day were found to be between 50-55 dBA L_{eq} on the western portion of the site and 90 percent (L90) the noise levels were 36-38 dBA. The existing noise levels in the project area consisted primarily of low traffic volumes along Drew Road and Westside Road and background noise from existing agricultural operations in the distances both on and adjacent to the site. The existing noise levels were found to be below County thresholds for all sensitive land uses.

Sensitive Receptors

Although noise pollution can affect all segments of the population, certain groups and land uses are considered more sensitive to ambient noise levels than others, sensitivity being a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. Children, the elderly, and the chronically or acutely ill are the most sensitive population groups.

Residential land uses are also generally more sensitive to noise than commercial and industrial land uses. There are no established residential neighborhoods immediately adjacent to the project site. The nearest residence is located within the central portion of the Big Rock 2 Cluster North Site, in the southwest corner of the Jessup Road/W Campbell Road intersection. Other nearby residences include the following:

- Residence located near the northeastern corner of the Big Rock 2 Cluster West site (north of West Vaughn Road)
- Residence located near the northeastern corner of the Big Rock 2 Cluster East site (west of Derrick Road)
- Residence located at the southwest corner of the Vogel Road/W Wixom Road intersection

Based on a review of GoogleEarth aerial imagery, the Westside Elementary School (2295 West Vaughn Road) is located approximately 200 feet from the closest boundary of the Big Rock 2 Cluster North site. However, according to the California Department of Education's California School Directory, Westside Elementary School closed on June 30, 2012 (California Department of Education 2017).

Proximity to Airports

The project site is not located within 2 miles of a public airport or a public use airport. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site.

Groundborne Vibration

Groundborne vibration consists of rapidly fluctuating motions or waves, which are also measured in dB. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside structures. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. High frequency vibrations reduce much more rapidly than low frequencies, so that low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings may be perceived as motion of building surfaces or rattling of windows, items on shelves, and pictures

hanging on walls. Vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise.

Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 hertz), or when the structure and the source of vibration are connected by foundations or utilities, such as sewer and water pipes. To assess a project's vibration impacts, the Caltrans 2013 vibration impact assessment, entitled the "Transportation and Construction-Induced Vibration Guidance Manual," was utilized. The guidance manual uses peak particle velocity (PPV) to quantify vibration amplitude. PPV is defined as the maximum instantaneous peak of the vibratory motion (Caltrans 2013). As a point of reference, a strongly perceived transient source is 0.90 PPV at 25 feet, and 0.10 PPV at 25 feet for an intermittent source. Table 3.12-1 identifies acceptable vibration limits for transportation and construction projects based on guidelines prepared by Caltrans.

Table 3.12-1. California Department of Transportation Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inch/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2013

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV=peak particle velocity

3.12.2 Regulatory Setting

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

Federal

No federal regulations govern offsite (community) noise. The Occupational Safety and Health Act of 1970 specifies measures designed to protect workers against the effects of noise exposure and lists permissible noise level exposure as a function of the amount of time to which a worker is exposed. Occupational Safety and Health Administration (OSHA) regulations also dictate hearing conservation program requirements and workspace noise monitoring requirements. OSHA requirements limit worker noise exposure to 90 dBA over an 8-hour work shift. Furthermore, if 8-hour worker noise

exposure at a work site exceeds 85 dBA, the area must be posted as a noise hazard zone; and a hearing conservation program would be required.

United States Fish and Wildlife Service (USFWS) has established a level of 60 dBA equivalent continuous noise level (L_{eq}) as the maximum permissible noise level to which certain riparian bird species may be subjected during the mating and nesting seasons.

State

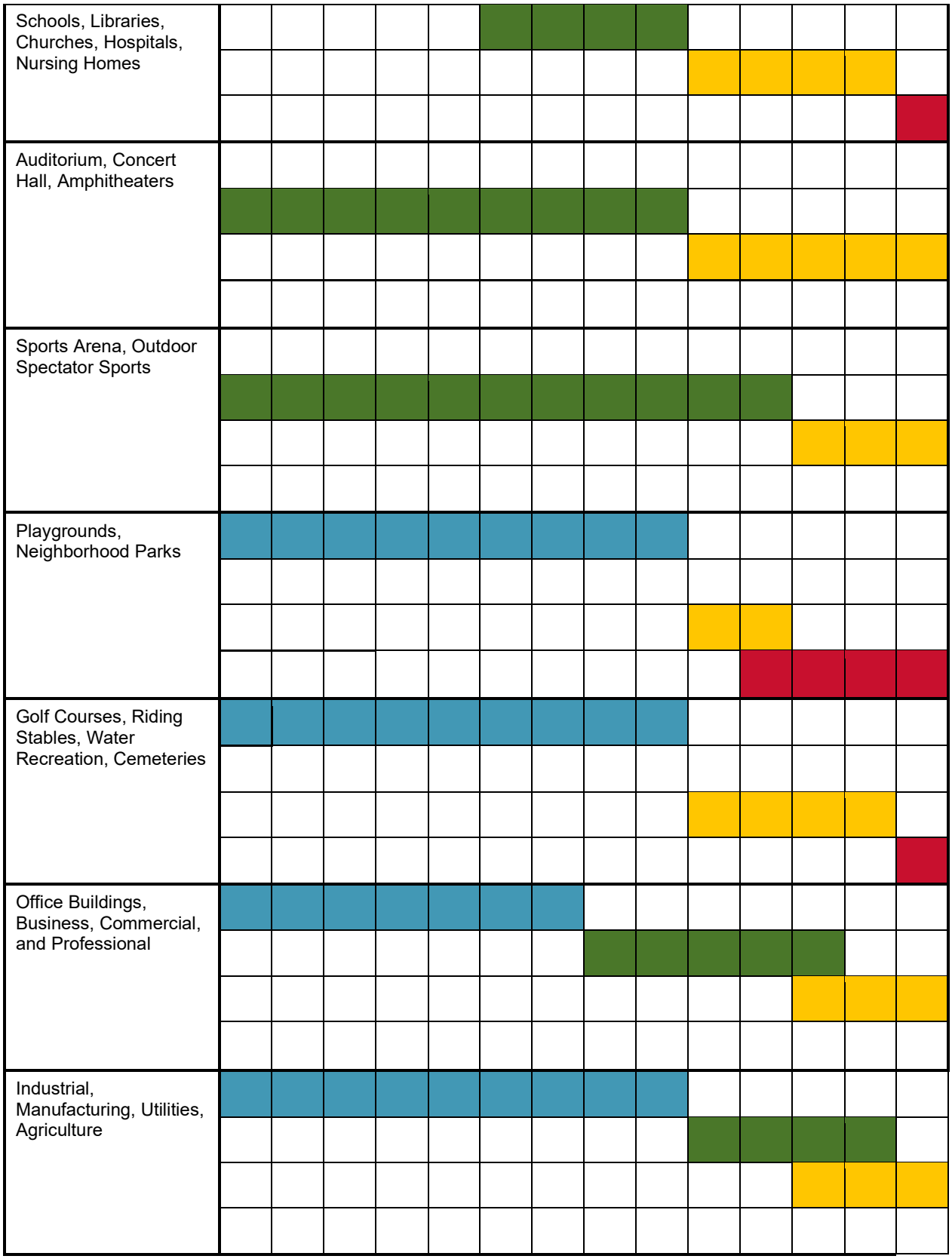
The state has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (CCR, Title 24). The noise insulation standards set forth an interior standard of Ldn 45 dB for any habitable room. They also require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than Ldn 60 dB. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

The State of California General Plan Guidelines, published by the OPR in 1998, also provides guidance for the acceptability of projects within specific CNEL/Ldn contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The County of Imperial has utilized the adjustment factors provided and has modified the state's Land Use Compatibility standards for the purpose of implementing the Noise Element of its General Plan.

Table 3.12-2 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 3.12-2. 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

	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 included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development should generally not be undertaken.

Source: California Office of Planning and Research 1998
Notes:
CNEL=community noise equivalent level; dBA=a-weighted decibel; L_{dn}=day-night average sound level

Local

Imperial County 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 3.12-3 summarizes the project's consistency with the applicable General Plan noise policies.

Noise Impact Zones. The County identifies Noise Impact Zones for sensitive receptors likely to be exposed to significant noise (greater than 60 dB CNEL or 75 dB L_{eq}) from roadways, railroads, airports, and agricultural activities. The purpose of the Noise Impact Zone is to define areas and properties where an acoustical analysis of a Project is required to demonstrate project compliance with land use compatibility requirements and other applicable environmental noise standards. Any property within 1,500 feet of an interstate highway or 1,100 feet of a State highway is within a Noise Impact Zone, as is any property within 0.25 mile (1,320 feet) of existing farmland that is in an agricultural zone.

An acoustical analysis is required for any action that would be located, all or in part, in a Noise Impact Zone. According to the Noise Element, if the future noise levels from the action are within the normally acceptable noise level guideline but result in an increase of 5 dBA CNEL or greater, the action would have a potentially significant noise impact and mitigation measures must be considered. If the future noise level after the action is completed is greater than the normally acceptable noise level, a noise increase of 3 dBA CNEL or greater should be considered a potentially significant noise impact; and mitigation measures must be considered.

Land use compatibility defines the acceptability of a land use in a specified noise environment. Noise/Land Use Compatibility Guidelines are provided in the Noise Element to evaluate potential noise impacts and provide criteria for environmental impact findings and conditions for project approval. An

acoustical analysis is required to demonstrate conformance of a project with Noise/Land Use Compatibility Guidelines. These guidelines categorize noise levels at residential land uses as "normally acceptable" up to 60 dBA day-night average sound level (L_{dn}) or CNEL and as "conditionally acceptable" up to 70 dBA L_{dn} or CNEL.

Table 3.12-3. 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 and off-site agricultural operations. 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 are unlikely to exceed noise limits for the A-2, A-2-R, and A-3 zones. See Section 3.11.3 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	As described under General Plan Noise Policy 1, short-term and long-term noise impacts would be minimized through the implementation of the prescribed mitigation. Noise levels associated with project operations would be unlikely to exceed noise limits for the A-2, A-2-R, and A-3 zones.

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	As described under General Plan Noise Policy 1, short-term and long-term noise impacts would be minimized through the implementation of the prescribed mitigation. Noise levels associated with project operations would be unlikely to exceed noise limits for the A-2, A-2-R, and A-3 zones.
6. Projects Which Generate Off-site Traffic Noise. The acoustical analysis shall identify and evaluate projects which will generate traffic and increase noise levels on off-site roadways. If the project site has the potential to cause a significant noise impact on sensitive receptors along those roadways, the acoustical analysis report shall consider noise reduction measures to reduce the impact to a level less than significant.	Consistent	As described in Chapter 3, 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: County of Imperial 2015c
Notes:
dBA=a=weighted decibel; EIR=environmental impact report

Construction Noise Standards

Construction noise standards included in the Noise Element restrict construction equipment noise levels to 75 dBA L_{eq} when averaged over an eight-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-hour period. In addition, construction equipment operation is 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 Saturday. Further, no commercial construction operations are permitted on Sunday or holidays.

County of Imperial Noise Ordinance

The County enforces construction and operation noise standards specified in the Noise Element through the Noise Ordinance. Noise-generating sources in Imperial County are regulated under the Imperial County Codified Ordinances, Title 9, Division 7 (Noise Abatement and Control) (Imperial County 2022). The noise standards of the Ordinance limit the hours of construction and the level of noise emitted by the construction, as well as the operational noise levels at various land uses for day, evening, and night. Noise limits are established in Chapter 2 of this ordinance and shown in Table 3.12-4.

Table 3.12-4. Imperial County Property Line Noise Limits

Zone	Time	Average Hourly Sound (L_{eq})
Residential Zones	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
Multi-Residential Zones	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial Zones	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
Light Industrial/Industrial Park Zones	Anytime	70
General Industrial Zones	Anytime	75

Source: Imperial County Ordinance § 90702.00

Note: When the noise-generating property and the receiving property have different uses, the more restrictive standard shall apply. When the ambient noise level is equal to or exceeds the Property Line noise standard, the increase of the existing or proposed noise shall not exceed 3 dB Leq.

Property line noise limits apply to noise generation from one property to an adjacent property. The standards imply the existence of a sensitive receptor on the adjacent, or receiving, property. In the absence of a sensitive receptor, an exception or variance to the standards may be appropriate. These standards do not apply to construction noise. These standards are enforced through the County's code enforcement program on the basis of complaints received from persons impacted by excessive noise. The County may act to restrict disturbing, excessive, or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity residing in an area. Noise received at the property line of a residence is limited to 50 dBA L_{eq} in the daytime and 45 dBA L_{eq} at night.

Under Section 90702.00 of the County's Codified Ordinances, sound level limits for industrial noise are set at 75 dBA L_{eq} on or beyond the boundary of the property line at any time. Average hourly noise in residential areas is limited to 50 to 55 dBA from 7:00 a.m. to 10:00 p.m. and to 45 to 50 dBA from 10:00 p.m. to 7:00 a.m.

3.12.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts on noise and vibration, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

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

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Generate excessive groundborne vibration or groundborne noise levels

- For a project located in the vicinity of a private airstrip of an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Methodology

Noise generated by the proposed project will consist of: (1) short duration noise resulting from construction activities and (2) noise during normal facility operations. Vibration from the proposed project would only result during construction. Construction activities would take place only during daytime hours. An evaluation was performed of expected noise and vibration and compared to regulatory requirements.

Impact Analysis

Impact 3.12-1 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?

CONSTRUCTION

Construction noise, although temporary, can potentially affect nearby sensitive receptors, such as residences. Construction of the proposed project will require the use of heavy equipment that may be periodically audible at offsite locations. Received noise levels will fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, noise from construction equipment will vary dependent on the construction phase and the number and type of equipment at a location at any given time. Table 3.12-5 shows typical noise levels produced by various types of construction equipment at a distance of 50 feet. The construction period for the project is approximately 18 to 24 months. Construction would include the following activities:

- Site preparation
- Access and internal circulation roads
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Panel installation
- Electrical/instrumentation work
- Collector line installation
- Battery unit installation
- Stormwater management facilities
- Gen-tie line poles and conductor stringing

The variation in power and usage of the various equipment types creates complexity in characterizing construction noise levels. However, as described in Chapter 2, Project Description, noise generated

during construction activities would comply with the Imperial County Noise Ordinance (Title 9 Land Use Code, Division 7). Heavy construction is expected to occur between 6:00 am and 5:00 pm, Monday through Saturday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, concrete pours, staging material for the following day's construction activities, quality assurance/control, and commissioning.

In addition, the average distance from the construction activities to these sensitive land uses is approximately 250 feet. Construction noise will attenuate with increased distance from the noise sources. As such, noise levels would not exceed the County's 75 dBA Leq construction noise threshold.

Table 3.12-5. Typical Noise Levels for Construction Equipment

Equipment	Noise Level, Lmax at 50 feet	Composite Noise Level (Leq 1-hour) at 50 feet
Vibratory Post Driver	85	87
Crawler/Tractor/Dozer	82	
Dump, Concrete, Tender Truck	79	
Forklift/Aerial Lift/Boom	81	
Generator/Compressor	81	
Grader/Scraper	85	
Roller/Compactor	80	
Tractor/Loader/Backhoe	79	
Vibratory Plate (handheld)	83	
Flatbed Truck	74	
Water Truck	79	

Source: Federal Highway Administration Roadway Construction Noise Model, FHWA 2006

Traffic noise associated with construction of the proposed project is not anticipated to be a significant source of noise. Traffic noise is not greatly influenced by lower levels of traffic, such as those associated with the proposed project's construction effort. For example, traffic levels would have to double in order for traffic noise on area roadways to increase by 3 dBA. The proposed project's construction traffic on area roadways would increase hourly traffic volumes by much less than double; therefore, the increase in construction related traffic noise would be less than 3 dBA and is not significant.

As such, construction activities would not exceed the Imperial County daytime noise standard for construction activities of 75 dBA Leq at the nearest sensitive receptor and nighttime activities would not result in perceptible noise levels at the nearest sensitive receptors. Therefore, impacts would be less than significant.

OPERATION

The principal long-term, operational noise impacts resulting from the project would include light duty vehicle traffic for maintenance operations, including solar panel washing, central operations at the O&M building, including stationary mechanical equipment (e.g., heating, ventilation, and air-conditioning for the O&M building). The energy storage component facilities are not considered noise generators but would be equipped with air conditioning systems. The level of noise generated by these combined sources would depend on characteristics of the noise source, number of noise sources clustered together, type and effectiveness of building enclosure, and operational characteristics.

Operation of the O&M building, substation, and electrical distribution facilities would result in a minor increase in the use of motor vehicles, primarily associated with employees traveling to and from these facilities and routine maintenance and inspection activities. These trips for maintenance and inspection would be distributed through the roadway network. Because of the relatively low volume of project-generated traffic (refer to Section 3.14, Transportation), operation of the proposed project would not result in noticeable changes in the traffic noise along area roadways in relation to existing and projected roadway traffic volumes. As a result, long-term increases in traffic noise levels would be less than significant. The project would be required to comply with the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. This ordinance governs fixed operational noise within the project site. The 1-hour average sound level limit for the A-2, A-2-R, and A-3 zones is 75 dBA and noise levels up to 70 dBA L_{dn} are identified as normally acceptable. The noise generated during these collective operations would be required to comply with the noise standards contained in the County's Noise Ordinance. The noise associated with the O&M building or energy storage area do not represent a significant noise source, and would involve less intensive activities and operation of equipment as compared to existing agricultural operations in the area. Therefore, 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

Construction would result in temporary ground vibration. Construction activities most likely to cause vibration include heavy construction equipment and drilling. The County does not have adopted limits for determining significance of vibration impacts on structures or persons. Caltrans and the Federal Transit Administration have developed two of the decisive works in the assessment of vibrations from transportation and construction sources (Caltrans 2013; Federal Transit Administration 2006). The Caltrans vibration limits are reflective of standard practice for analyzing vibration impacts on structures from continuous and intermittent sources.

The *Caltrans Transportation and Construction Vibration Guidance Manual* identifies two impact criteria for buildings and humans. Table 3.12-1 describes impact criteria for buildings, and Table 3.12-6 describes impact criteria for humans.

Table 3.12-6. Caltrans Guideline Vibration Annoyance Potential

Human Response	Maximum PPV (inch/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2013

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV=peak particle velocity

As impact pile drivers have higher vibration levels than vibratory pile drivers, the potential vibration impact calculations assume that impact pile drivers will be used. Other construction activities are less intensive than pile driving and would have lower PPV than pile driving. Therefore, vibration levels from pile driving are considered worst case for the project construction. Caltrans vibration guidance provides the following equation to calculate PPV at sensitive receptors:

$$\text{PPV Impact Pile Driver} = PPV_{Ref} (25/D)^{n} \times (E_{equip}/E_{Ref})0.5 \text{ (in/sec)}$$

Where:

PPV_{Ref} = 0.65 in/sec for a reference pile driver at 25 feet

D = distance from pile driver to the receiver in feet

n = 1.1 is a value related to the vibration attenuation rate through ground

E_{equip} is rated energy of impact pile driver in ft-lbs

E_{Ref} is 36,000 ft-lb (rated energy of reference pile driver)

Using the referenced formula and an assumed 2,400 ft-lb rated energy for the post driver, the calculated PPV at the nearest structure (assumed to be 250 feet) would be 0.013 PPV, which according to the Caltrans guidance in Table 3.12-6, would not damage buildings and would be barely perceptible.

Construction would result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Construction would result in additional heavy vehicle trips on local roadways accessing the project site. Rubber-tire heavy vehicles traveling on roadways typically will not produce perceptible vibration at adjacent buildings.

Construction activities most likely to cause vibration include heavy construction equipment and site grading operations. Although all heavy, mobile construction equipment has the potential to cause at least some perceptible vibration when operating close to buildings, the vibration is usually short term and is not of sufficient magnitude to cause building damage. Heavy equipment such as dozers, loaders, and drill rig equipment would not be operated close enough to any residences or structures to cause vibration impact. Therefore, impacts would be less than significant.

OPERATION

Operation of the project would not result in vibrations perceptible to nearby receptors. As such, impacts would be less than significant.

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 proposed project would not involve the construction of sensitive land uses. The project site is not located within 2 miles of a public airport or a private airstrip. The nearest airport is the Naval Air Facility in El Centro approximately three miles northeast of the project site. Therefore, the proposed project would not expose people to excessive airport noise levels and no impact is identified.

Mitigation Measure(s)

No mitigation measures are required.

3.12.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

At the end of the project's useful life, all equipment and facilities will be properly abandoned and dismantled. The solar facility requires the project applicant to implement a comprehensive reclamation plan that would restore the project site to pre-existing (pre-project) conditions following decommissioning of the project. Adhering to Imperial County standards for construction noise levels would reduce the noise and vibration impacts to below a level of significance.

All abandonment and decommissioning activities would be short-term and any noise from decommissioning equipment (e.g., cranes; excavators) would be similar to the construction impacts discussed above and would not be significant. Noise from energy operations would entirely cease with the discontinuation of geothermal energy generation activities/facilities.

Residual

Adhering to the Imperial County standards for construction noise levels would reduce the noise and vibration impacts to below a level of significance.

3.13 Public Services

This section includes an evaluation of potential impacts for identified public services that could result from implementation of the proposed project. Public services typically include fire protection, law enforcement, schools, and other public facilities such as parks, libraries, and post offices. Each subsection includes descriptions of existing facilities, service standards, and potential environmental impacts resulting from implementation of the proposed project, and mitigation measures where appropriate. Section 3.16, Utilities/Service Systems, of this EIR evaluates impacts related to water supply, wastewater, and other utilities. The impact assessment provides an evaluation of potential adverse effects to public services based on criteria derived from the CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description.

The IS/NOP prepared for this EIR determined that the project would not result in impacts on schools, parks and other public facilities (libraries and post offices). Therefore, these issue areas will not be discussed further. The IS/NOP is included in Appendix A of this EIR.

3.13.1 Existing Conditions

The project site is located approximately 8 miles southwest of the City of El Centro and approximately one mile southwest of Seeley, a census-designated place, in the unincorporated area of Imperial County. The project site is located within the Imperial County Fire Department/Office of Emergency Services (ICFD/OES) and the Imperial County Sheriff Department's areas of service.

Fire Protection Services

The project site is located within the ICFD/OES area of service. ICFD/OES currently has nine fire stations and six contracting agencies serving the entire 4,500 square miles of unincorporated Imperial County. The nine ICFD stations are located in the communities of Heber, Seeley, Ocotillo, Palo Verde, Niland, Winterhaven, Salton City, and the City of Imperial (ICFD 2019). Each of the county fire stations is staffed with a Captain, Firefighter, and Reserve Firefighter with the only exception being the Palo Verde station that is staffed with a Firefighter and Reserve Firefighter. Every fire station has a Type I engine as its primary apparatus. The City of Imperial and Heber stations also house a Ladder Truck along with the Type I engine. The Seeley and Heber stations also house Type III engines. The ICFD Emergency Units strive to respond immediately after receiving the initial tone for service. The actual response time would be determined by the area of response throughout the vast response area covered.

The closest fire station to the project site is the Seeley station located at 1828 Park Street in Seeley, California. This station is located approximately less than 3 miles northeast of the project site.

Police Protection Services

Imperial County's Sheriff's Department is responsible for police protection services in the unincorporated areas of Imperial County and the City of Holtville. The patrol function is divided between North County Patrol, South County Patrol, East County Operations, and City of Holtville. Deputies assigned to the Patrol Divisions are the "first responders" to a call for law enforcement service. The main patrol station is located in El Centro on Applestill Road. Sheriff substations are located in the communities of Brawley, Niland, Salton City, and Winterhaven with resident deputies located in the unincorporated community of Palo Verde. Under an existing mutual aid agreement,

additional law enforcement services would be provided if and when required by all of the cities within the county, as well as with Border Patrol and the California Highway Patrol. The California Highway Patrol provides traffic regulation enforcement, emergency accident management, and service and assistance on state roadways and other major roadways in the unincorporated portions of Imperial County.

The closest sheriff's station to the project site is the main patrol station in El Centro, located at 328 Applestill Road. This station is approximately 8 miles east of the project site.

3.13.2 Regulatory Setting

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

State

Fire Codes and Guidelines

The California Fire Code (Title 24, Part 9 of the CCR) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

Local

Imperial County General Plan

The Imperial County General Plan Seismic and Public Safety Element contains goals and objectives that relate to fire protection and law enforcement pertinent to the proposed project. An analysis of the project's consistency with the applicable goals and objectives of the Seismic and Public Safety Element is provided in Table 3.13-1.

Table 3.13-1. Project Consistency with Applicable General Plan Seismic and Public Safety Element

Applicable General Plan Goals/Policies	Consistency Determination	Analysis
Goal 1: Include public health and safety considerations in land use planning.	Consistent	The project's CUP applications and site plan will be reviewed by the Imperial County Fire Department to ensure that the facility complies with state and local fire codes and fire safety features are met. Additionally, the project applicant has included site design measures to reduce the potential for fire hazards

Table 3.13-1. Project Consistency with Applicable General Plan Seismic and Public Safety Element

Applicable General Plan Goals/Policies	Consistency Determination	Analysis
Objective 1.8: Reduce fire hazards by the design of new developments		including 100,000 gallon on-site fire water tanks for O&M and sufficient turnaround areas to allow clearance for fire trucks per fire department standards.
Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.	Consistent	See response above for a discussion on how the project would implement all state and local fire codes and provide site design measures to reduce the potential for fire hazards. With regards to public safety and security, the project would include 7 to 10 foot tall perimeter security fencing. An intrusion alarm system comprised of sensor cables integrated into the perimeter fence, intrusion detection cabinets placed approximately every 1,500 feet along the perimeter fence, and an intrusions control unit, located either in the substation control room or at the O&M building, or similar technology, may be installed. Additionally, the project may include additional security measures including, but not limited to, low voltage fencing with warning reflective signage, controlled access points, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the project.
Objective 2.5: Minimize injury, loss of life, and damage to property by implementing all state codes where applicable.		

Source: ICPDS 1997

CUP = conditional use permit

Imperial County Office of Emergency Services – Multi-Hazard Mitigation Plan

The ICFD is the local Office of Emergency services in Imperial County. Imperial County has developed the multi-jurisdictional hazard mitigation plan (MHMP) to create a safer community. The purpose of the MHMP is to significantly reduce deaths, injuries, and other disaster losses caused by natural and human-caused hazards in Imperial County. The MHMP describes past and current hazard mitigation activities and outlines goals, strategies, and actions for reducing future disaster losses. The Imperial County MHMP is the representation of the County's commitment to reduce risks from natural and other hazards and serves as a guide for decision-makers as they commit resources to reducing the effects of natural and other hazards. The jurisdictions included in the MHMP include the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmoreland, the IID and the Imperial County Office of Education. The MHMP complies with all federal, state, and local laws guiding disaster management.

Imperial County Emergency Operations Plan

The Imperial County Emergency Operations Plan (EOP) provides guidance and procedures for the County to prepare for and respond to emergencies. The EOP designates the Sheriff's Department as having jurisdiction in an emergency involving evacuation within the unincorporated areas of the county and within contract cities.

3.13.3 Impacts and Mitigation Measures

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

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to public services are considered significant if the project would result in the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

As mentioned previously, it was determined through the preparation of an IS/NOP that the project would not result in impacts on schools, parks, or other public facilities. Therefore, those issue areas will not be discussed further and are included in Chapter 6, Effects Found Not Significant, of this EIR.

Methodology

Evaluation of potential fire and police service impacts of the proposed project was based on consultation with the ICFD, Sheriff's Department and review of other development projects in the area.

Impact Analysis

Impact 3.13-1 Would the project result in the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

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.

Points of ingress/egress would be accessed via locked gates that can be opened by any emergency responders. Although the proposed project would be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health, and safety requirements, the project applicant will be required to consult with the Fire Department to address any fire safety and service concerns (i.e, BESS) so that adequate service is maintained. While the proposed project may result in a minor increase in demand for fire protection 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 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. In addition, the project applicant will be required to prepare a Fire Management Plan in accordance with ICFD requirements for project construction activities as well as long-term operations, including establishing appropriate emergency access to the project site for first responders, and identifying project-specific on-site fire protection or suppression systems that comply with Imperial County requirements. Additional fire safety features to be described in detail in the Fire Management Plan, include the following:

- Access gates and service roads along the perimeter of the project designed to meet or exceed fire code specifications (e.g., road width, turnarounds, etc.).
- PV modules and ancillary equipment constructed of fire-resistant materials, non-flammable ground cover and perimeter barriers (as required) around electrical equipment, and both portable and fixed fire suppression systems.
- Portable fire extinguishers would be provided at various locations throughout the project site.
- Fixed fire suppressions systems would be employed throughout the project site based on equipment manufacturer specifications and coordination with the Fire Department.
- On-site water tank(s), built-in thermal, chemical and/or mechanical monitoring systems, and built-in fire suppression systems.
- Best practices including vegetation management and landscape maintenance to help maintain fire-safe operating facilities.

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 CUPs. No new fire stations or facilities would be required to serve the project. Impacts would therefore be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.13-2 Would the project result in the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

The project does not include a residential component; therefore, it would not result in a substantial addition of residents to the Sheriff Department's service area. Although the potential is low, the proposed project may attract vandals or other security risks and the increase in construction-related traffic could increase demand on law enforcement services. Site 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. Points of ingress/egress would be accessed via locked gates. An intrusion alarm system comprised of sensor cables integrated into the perimeter fence, intrusion detection cabinets placed approximately every 1,500 feet along the perimeter fence, and an intrusions control unit, located either in the substation control room or at the O&M building, or similar technology, may be installed. Additionally, the project may include additional security measures including, but not limited to, low voltage fencing with warning reflective signage, controlled access points, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the project. 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. 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 the CUPs and shall at all times be a party to a public benefit agreement in a form acceptable to County Counsel in order to pay for all costs, benefits, and fees associated with the approved project, and the applicant will be required to reimburse the Sheriff's Department for any investigations regarding theft on the project site and related law enforcement. Approval of this public benefit agreement will be by the Board of Supervisors prior to the issuance of the first building permit. These potential impacts are less than significant.

Mitigation Measure(s)

No mitigation measures are required.

3.13.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

At the end of the project's useful life, all equipment and facilities will be properly dismantled. Decommissioning and restoration of the project site would occur and would not result in an increased need for fire and police protection services. Decommissioning of the project would occur through implementation of a required Reclamation Plan. These activities would be in the form of disassembling project components and then restoring the site to pre-project conditions, both of which would not create an increase in demand for police or fire service beyond the level required for proposed operations. Therefore, no impact is identified and no mitigation is required for this phase.

Residual

With payment of the development impact fees for fire and police protection services, project impacts would be less than significant. No mitigation is required, and no residual significant and unmitigated impacts would result.

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3.14 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 regulations regarding transportation, and an analysis of the potential impacts of the proposed project. Information in this section is summarized from the *Transportation Impact Analysis* (TIA) prepared by Dudek. This report is included in Appendix I of this EIR.

The TIA prepared for the project includes both a CEQA and Non-CEQA assessment for the project, as described below.

CEQA Assessment – Vehicle Miles Traveled (VMT) Analysis

On September 27, 2013, Governor Brown signed SB 743, with the purpose of streamlining the CEQA review process for several categories of development projects, including the development of infill projects in transit priority areas and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of level of service (LOS) in CEQA documents.

In November 2017, pursuant to SB 743, the Office of Planning and Research released the draft revised CEQA Guidelines, recommending the use of VMT for analyzing transportation impacts. Additionally, OPR released the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, to provide guidance on VMT analysis (2018). In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their jurisdictions. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance... recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (CEQA Guidelines Section 15064.7[c]). Subsequently in December 2018, the CEQA Guidelines were updated to add new Section 15064.3, Determining the Significance of Transportation Impacts, that describes considerations for evaluating a project's transportation impacts using the VMT methodology, formally replacing the LOS metric. This new methodology is required under CEQA beginning July 1, 2020.

The VMT screening and analysis in the TIA are based on the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA (2018).

Non-CEQA Assessment – LOS or Traffic Analysis

The County's new transportation guidelines that are currently under preparation could trigger an update to the Transportation/Circulation Element and the threshold of LOS C for street segments and intersections. However, LOS is no longer used as metric for determining transportation impacts under CEQA, but is used for determining traffic effects under the County's General Plan. Therefore, the LOS has been reported in the TIA for informational purposes, and the threshold of LOS C has been used to determine if any roadway improvements, or transportation demand management measures would be implemented by the project.

The County of Imperial has vehicle LOS standards in its Circulation and Scenic Highways Element that the County currently strives to maintain through various projects designed to improve local infrastructure. The LOS standards apply to any new development which may have a significant impact on County roads. The LOS analysis has been prepared to evaluate the short-term impacts of the project's construction on the County's roadway network.

3.14.1 Existing Conditions

Existing Circulation Network

The following is a description of the nearby roadway network:

Interstate 8 (I-8) is the primary east-west route through Imperial County between San Diego, California and Yuma, Arizona. In the vicinity of the project, I-8 provides two travel lanes in each direction with grade separation at all intersections. It serves as an interregional route for people and goods movement and provides access to desert recreational activities.

Evan Hewes Highway (S80) is an east-west two-lane undivided roadway. Bike lanes or bus stops are not provided, and the posted speed limit is 40 miles per hour (mph). Curbside parking is prohibited along both sides of the roadway.

County Route S29 – Drew Road is a north-south two-lane undivided roadway with a 24-foot paved width and unpaved shoulders from Evan Hewes Highway south to SR-98. Drew Road provides access to I-8 near the project. Bike lanes or bus stops are not provided along Drew Road. The posted speed limit is 55 mph. A portion of Drew Road from the Townsite of Seeley to Diehl Road is designated as a Class II bike route.

Dunaway Road is a north-south two-lane undivided roadway with a 20-foot paved width and unpaved shoulders from I-8 to Evan Hewes Highway. The posted speed limit is 55 mph. Dunaway Road does not have any sidewalks or bike routes.

The project site is served by numerous local two-lane rural roads, which are classified as Minor Collector – Local Collector roads in the County's Circulation and Scenic Highways Element (Imperial County 2008). The east-west roads, Evan Hewes Highway, Diehl Road and Wixom Road would serve as the primary access roads into the project site from north-south roads such as Derrick Road, and Westside Road, which would provide access to some of the project parcels.

Alternative/Public Transportation

Transit, Pedestrian, and Bicycle Transportation

Imperial Valley Transit (IVT) operates a fixed route transit system between, and within, the cities and rural communities in Imperial County. IVT has 12 routes running Monday through Friday, with over 20 buses in operation. The nearest bus service to the site is provided by IVT Route 4 along Evan Hewes Highway. The route operates between El Centro and Seely. The nearest bus stop is at the intersection of Drew Road and Even Hewes Highway, approximately 3 miles north of the Drew Road and Diehl Road intersection.

IVT Access provides curb to curb transportation services upon advance reservation, to functional and mobility disadvantaged persons. IVT Access provides transportation to and from any location in the Imperial Valley service area within a ¾ mile "corridor" and a 30 minute "window" of regular IVT bus services. This service area covers much of the County of Imperial for most of the day Monday through

Sunday. IVT Access also provides its services to the general public (when seating is available). There are also numerous private service providers including taxis, charter buses, and shuttles serving areas within Imperial County.

The project site is in a generally undeveloped area and there are no dedicated pedestrian or bicycle facilities in the vicinity of the project site or along the surrounding street network. The Imperial County Transportation Commission is in the process of developing a Regional Active Transportation Plan (ATP) (February 2022 Final) to help meet the County's goals and vision for providing a transportation system that supports walking, cycling, public transit, and automobiles. Imperial County also recently completed the Imperial County Pedestrian Master Plan (April 2021), however, given the rural nature of the study area, there are no planned improvements in the area.

Project Site Access

Regional access to the project site would be provided by I-8 and SR-98. Primary access to the project site would utilize east-west roads Evan Hewes Highway, Diehl Road and north-south road Westside Road. The east-west road Wixom Road and West Vaughn Road; and the north-south road Derrick Road may provide access to some project parcels.

Existing Traffic Operations

This section details the existing traffic volumes and the existing intersection and roadway segment operations within the traffic study area. The traffic study area for the LOS analysis is generally based on intersections and roadway segments where a majority of project trips would be routed. The traffic study area intersections and roadway segments are listed in Table 3.14-1 and Table 3.14-2, respectively.

Intersection Operations

Table 3.14-1 summarizes the results of the intersection analysis for the AM and PM peak hours for existing conditions. As shown in Table 3.14-1, the study intersections are currently operating at satisfactory levels of service (LOS B or better) under existing conditions.

Table 3.14-1. Existing Weekday Peak Hour Intersection LOS

No.	Intersection	Traffic Control	Existing Conditions			
			AM Peak		PM Peak	
			Delay[1]	LOS	Delay[1]	LOS
1	Drew Road/Evan Hewes Road	AWSC	10.3	B	8.7	A
2	Drew Road/I-8 WB Ramps	TWSC	9.8	A	9.9	A
3	Drew Road/I-8 EB Ramps	TWSC	10.7	B	11.5	B
4	Drew Road/Kramar Road	TWSC	9.2	A	9.1	A
5	Drew Road/Diehl Road	TWSC	8.9	A	8.4	A
6	Drew Road/Wixom Road	TWSC	8.6	A	8.6	A

7	Dunaway Road/I-8 EB Ramps	TWSC	9.0	A	9.2	A
8	Dunaway Road/I-8 WB Ramps	TWSC	8.6	A	8.8	A
9	Dunaway Road/Evan Hewes Highway	TWSC	9.1	A	9.1	A
10	Brown Road/Evan Hewes Highway	AWSC	8.8	A	10.0	B
11	Jeffrey Road/Evan Hewes Highway	TWSC	8.5	A	9.9	A
12	Westside Road/Evan Hewes Highway	TWSC	8.6	A	10.7	B
13	Huff Road/Evan Hewes Highway	TWSC	10.8	B	12.1	B
14	Derrick Road/Evan Hewes Highway	TWSC	11.2	B	11.1	B

Source: Appendix I of this EIR
Notes:
AWSC=all-way stop-controlled; EB=eastbound; LOS=Level of Service; TWSC=two-way stop-controlled; WB=westbound
[1] Delay measured in seconds per vehicle for unsignalized intersection (LOS is reported based on the worst delayed movement of the unsignalized intersection).

Roadway Segment Operations

Table 3.14-2 shows the results of the existing condition LOS analysis for the study area roadway segments. As shown in Table 3.14-2, all the study area roadway segments are operating at satisfactory ADT volume-to-capacity conditions under existing conditions.

Table 3.14-2. Existing ADT Roadway Segment Level of Service

No.	Roadway Segment	Classification (as built)	No. of Lanes	Capacity at LOS E	Existing Conditions		
					ADT[1]	V/C	LOS
1	Drew Road, north of I-8 WB Ramps	Minor Collector (Local Collector)	2	16,200	3,033	0.19	B
2	Drew Road, north of Diehl Road	Minor Collector (Local Collector)	2	16,200	33	0.00	A
3	Drew Road, between Diehl Road and Wixom Road	Minor Collector (Local Collector)	2	16,200	191	0.01	A
4	Drew Road, south of Wixom Road	Minor Collector (Local Collector)	2	16,200	319	0.019	A
5	Dunaway Road, between Evan Hewes Hwy and I-8 WB Ramps	Minor Collector (Local Collector)	2	16,200	751	0.05	A
6	Evan Hewes Hwy, between Brown Road and Dunaway Road	Minor Collector (Local Collector)	2	16,200	609	0.04	A

7	Evan Hewes Hwy, between Westside Road and Huff Road	Minor Collector (Local Collector)	2	16,200	2,613	0.16	B
8	Evan Hewes Hwy, between Derrick Road and Drew Road	Minor Collector (Local Collector)	2	16,200	3,031	0.19	B

Source: Appendix I of this EIR
Notes: ADT=average daily traffic; LOS=Level of Service; Hwy=highway; V/C=volume-to-capacity; WB=westbound
[1] Volume provided from ADT counts conducted in March and September 2024.

3.14.2 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.

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 (Imperial County Planning and Development 2008).

County of Imperial Bicycle Master Plan Update: Final Plan

In 2012, the County of Imperial adopted an updated Bicycle Master Plan to serve as the guiding document for the development of an integrated network of bicycle facilities and supporting programs designed to link the unincorporated areas and attractive land uses throughout the County. This document is an update to the previously adopted Countywide Bicycle Master Plan; and was prepared to accomplish the following goals:

1. To promote bicycling as a viable travel choice for users of all abilities in the County
2. To provide a safe and comprehensive regional connected bikeway network
3. To enhance environmental quality, public health, recreation and mobility benefits for the County through increased bicycling

The County of Imperial's General Plan, Circulation and Scenic Highways Element, and Conservation and Open Space Element, provide a solid planning basis for the Bicycle Master Plan. In spite of the fact that there are a limited number of bicycle facilities in Imperial County and no comprehensive bicycle system, there is a growing interest in cycling and numerous cyclists bike on a regular basis for both recreation and commuting to work and school.

3.14.3 Impacts and Mitigation Measures

Thresholds of Significance

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

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities
- Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

Methodology

The assessment evaluates the potential for the project, as described in Chapter 2, Project Description, to result in transportation impacts during the construction and operational phases of the project. As

previously mentioned above, information in this section is summarized from the *Transportation Impact Analysis* (TIA) prepared by Dudek. This report is included in Appendix I of this EIR. The TIA prepared for the project includes both a CEQA (VMT) and Non-CEQA (LOS) assessment for the project.

Impact Analysis

Impact 3.14-1 Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

As previously mentioned above, the County of Imperial's new transportation guidelines that are currently under preparation could trigger an update to the Transportation/Circulation Element and the threshold of LOS C for street segments and intersections. However, LOS is not used as metric for determining transportation impacts under CEQA, but is used for determining traffic effects under the County's General Plan. Therefore, the project's LOS has been analyzed in the TIA and this EIR for informational purposes (Appendix I of this EIR).

Construction

Trip Generation

The construction phase of the project is anticipated to take approximately 18 to 24 months. The work would be completed between 6:00 A.M. and 7:00 P.M., Monday through Saturday, and would require a peak of approximately 500 workers and 8 vendor trucks, per day. Approximately 10 percent of the workers were assumed to carpool. Work shifts could begin prior the AM peak period (generally between 7:00 a.m.– 9:00 a.m.) and end after the PM peak period (generally between 4:00 p.m.– 6:00 p.m.). However, to provide a conservative analysis, approximately 80 percent of workers were assumed to arrive in the morning peak hour, and 80 percent are assumed to exit in the afternoon peak hour. Truck traffic to and from the site was evenly distributed assuming the 8-hour workday. It should be noted that these trips are considered temporary as they would not be generated once construction is completed. The project trips are presented in Table 3.14-3.

To address the effect caused by large over-sized trucks onto the roadway network, a factor called the passenger car equivalent (PCE) was developed and represents the number of passenger cars displaced by each truck in the traffic stream under mixed flow conditions. PCE factors generally range from 1.5 to 3.0 based on the number of axles in the truck. A PCE factor of 2.0 has been utilized to convert vendor truck trips, and a PCE factor of 3.0 has been utilized to convert haul truck trips into equivalent car trips for the project construction trip generation analysis. The peak phase of construction shown in includes worker trips and vendor truck trips only and does not include haul truck trips.

As shown in Table 3.14-3, the peak construction phase would temporarily generate approximately 1,016 total daily trips, 362 AM peak hour trips (361 inbound and 1 outbound), and 361 PM peak hour trips (1 inbound and 360 outbound). With the application of PCE factors to truck trips, the project would generate 1,032 total PCE daily trips, and 362 PCE trips during the AM peak hour (360 inbound and 2 outbound) and 364 PCE trips during the PM peak hour (2 inbound and 362 outbound).

Table 3.14-3. Project Construction Trip Generation Summary

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation								
Workers[1]	500 workers	1000	360	0	360	0	360	360
Vendor Trucks[2]	8 trucks	16	1	1	2	1	1	2
Total		**1,016**	**361**	**1**	**362**	**1**	**361**	**362**
Trip Generation w/ PCE								
Workers (1.0 PCE)	500 workers	1000	360	0	360	0	360	360
Vendor Trucks (2.0 PCE)	8 trucks	32	2	2	4	2	2	4
Total (w/ PCE)		**1,032**	**362**	**2**	**364**	**2**	**362**	**364**

Notes: PCE = Passenger car equivalent
1. 10% of all workers assumed to carpool to the site and 20% of the workers assumed to travel in the off-peak for the purposes of this analysis.
2. Vendor trucks assumed to be spread out evenly across the 8-hour workday.
Source: Appendix I of this EIR

TIA Analysis Scenarios

Intersection and roadway segment LOS analyses were prepared for the weekday AM and PM peak hours at the study area intersection and roadway segments for the following analysis scenarios:

- Existing Conditions: includes an LOS analysis of existing weekday AM and PM peak-hour and daily traffic volumes, for the study area intersections and roadway segments. The existing condition is representative of the year 2024. The LOS analysis for Existing Conditions is provided in Section 3.14.1 above.
- Existing plus Project: This condition includes analysis of LOS under existing conditions with project traffic added to the existing AM and PM peak hour and daily traffic volumes.
- Near Term Conditions: This condition includes analysis of LOS under Near Term conditions within a short-term horizon period of approximately three years where the proposed project would be in its construction phase. Near Term traffic volumes (ADT and AM and PM peak hour) include existing traffic volumes and traffic generated by other approved and pending projects in the study area as well as a background or ambient traffic growth.
- Near Term plus Project: This condition includes analysis of LOS under Near Term conditions with project traffic added to the Near-Term AM and PM peak hour and daily traffic volumes.

EXISTING PLUS PROJECT TRAFFIC OPERATIONS

Intersections. Table 7 in the TIA (Appendix I of this EIR) summarizes the results of the intersection analysis for the AM and PM peak hours for Existing plus Project conditions. As shown in Table 7 of the TIA, the study area intersections are forecast to operate at LOS C or better under Existing plus Project conditions.

Roadway Segments. Table 8 in TIA (Appendix I of this EIR) shows the results of the Existing plus Project conditions LOS analysis for the study area roadway segments of Drew Road with the project-added traffic. As shown in Table 8 in the TIA, all the study area roadway segments are forecast to operate at LOS B or better conditions under Existing plus Project conditions.

NEAR TERM TRAFFIC OPERATIONS

Intersections. Table 11 in the TIA (Appendix I of this EIR) shows the results of the Near-Term condition LOS analysis for the study area roadway segments. As shown in Table 11 in the TIA, all study area intersections are forecast to operate at LOS C or better under Near Term conditions, with the exception of the following roadway segment:

- Derrick Road/Evan Hewes Highway intersection (LOS E - AM peak hour)

Roadway Segments. Table 12 in the TIA (Appendix I of this EIR) shows the results of Near Term condition LOS analysis for the study area roadway segments. As shown in Table 12 in the TIA, all the study area roadway segments are forecast to operate at satisfactory ADT volume-to-capacity conditions under Near Term conditions.

NEAR TERM PLUS TRAFFIC OPERATIONS

Intersections. As shown in Table 13 of Appendix I of this EIR, with the exception of Drew Road/Haskell Road-Evan Hewes Road intersection (in AM and PM peak hours), Drew Road/I-8 eastbound ramps (in PM peak hour) and Derrick Road/Evan Hewes Highway (in AM and PM peak hours), all other the study intersections are forecast to operate at LOS C or better under Near Term plus Project conditions.

Table 13 in the TIA (Appendix I of this EIR) shows the results of the intersection analysis for the AM and PM peak hours for Near Term plus project conditions. As shown in Table 13, all the study intersections are forecast to operate at LOS C or better under Near Term plus Project conditions, with the exception of the following intersections:

- Drew Road/Haskell Road-Evan Hewes Road intersection (LOS F – AM peak hour; LOS D – PM peak hour)
- Drew Road/I-8 eastbound ramps (LOS F – PM peak hour)
- Derrick Road/Evan Hewes Highway (LOS F – AM and PM peak hours)

Because the traffic impact caused by construction traffic from the proposed project under Near Term plus Project conditions at the study area intersections would be temporary and short-term, no roadway improvements are recommended. However, as a condition of approval under the project's CUP(s), a traffic control plan as part of a Construction Traffic Management Plan (CTMP) would be implemented by the project applicant or contractor at the three intersections that operate at LOS D or worse under the proposed project.

Roadway Segments. Table 14 in the TIA (Appendix I of this EIR) shows the results of the Near-Term condition LOS analysis for the study area roadway segments. As shown in Table 14 in the TIA, all the study area roadway segments are forecast to operate at LOS C or better under Near Term plus Project conditions.

Operation

Once the proposed project is complete, the site will be staffed with 4 to 10 onsite employees. During operations, the proposed project would generate up to 20 trips per day. Based on the low amount of operational trips generated and low existing traffic volumes on area roadways, no substantial transportation impacts are anticipated. This is considered a less than significant impact.

Transit, Bicycle, and Pedestrian Facilities

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 project site is in a generally undeveloped area and there are no dedicated pedestrian or bicycle facilities in the vicinity of the project site or along the surrounding street network. Therefore, the proposed project would have no impact on transit, bicycle, or pedestrian facilities.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.14-2 Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The County of Imperial is in the process of creating transportation guidelines for evaluating potential project-related impacts to VMT. In the interim, the OPR's Technical Advisory and CEQA Guidelines Section 15064.3(b) Criteria for Analyzing Transportation Impacts have been used to evaluate the proposed project. It should be noted that the methodology for VMT screening and analysis used in this report is consistent with requirements for VMT analysis of solar and BESS projects that generate temporary construction trips and nominal operational trips.

CEQA Guidelines Section 15064.3(b) focuses on specific criteria (VMT) for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The CEQA Guidelines are accompanied by an OPR Technical Advisory, which includes specifications for how to estimate and forecast VMT for these subdivisions.

The proposed project is not a land use or transportation project, and therefore neither Section 15064.3(b)(1) nor Section 15064.3(b)(2) of the CEQA Guidelines apply. Instead, the proposed project would be categorized under Section 15064.3(b)(3) qualitative analysis. The following paragraph from the Section 15064.3(b)(3) provides guidance regarding qualitative analysis:

> If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

Construction

The project construction related vehicle-trip generation (for workers and trucks) is summarized in Table 3.14-3. Per OPR, heavy vehicle traffic is not required to be included in the estimation of a project's VMT. Construction-related trips are temporary and would not generate permanent trips. Therefore, for the purposes of this analysis, the VMT from construction is not required to be quantified per SB 743 requirements. The project construction would generally be consistent with typical construction activities in terms of the temporary nature of activities, trip generation characteristics, and the types of vehicles and equipment required. There would be no special conditions for constructing the project. Further, measures to reduce the VMT generated by workers and trucks are limited, and there are no thresholds or significance criteria for temporary, construction related VMT.

The regional VMT per employee for the Imperial County region is estimated to be 18.59 VMT per employee per City of El Centro General Plan Update Transportation Impact Study. While worker and vendor trips would generate VMT, once construction is completed, the construction-related traffic would cease and VMT would return to pre-construction conditions. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Sections 15064.3(b)(3), and impacts related to VMT would be less than significant.

Operation

Even though the threshold of Small Projects is used to establish less-than-significant VMT impacts for land development projects, they can be used to screen projects that would generate nominal operation and maintenance traffic. Based on OPR guidance, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact. As mentioned previously, the operation of the project would require 4 to 10 full-time employees and therefore would generate up to 20 daily trips, and therefore would not generate significant VMT. Because the operational phase of the project generates less than 110 daily trips, it would screen out of conducting a detailed VMT analysis.

Therefore, utilizing the guidance provided by OPR, the operation of the project would not generate a significant number of trips and thereby not cause a substantial amount of VMT. Therefore, the operation and maintenance of the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)(1) and 15064.3(b)(3), and impacts related to VMT would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.14-3 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 proposed project 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 3.14-4 Would the project result in inadequate emergency access?

All proposed facilities would be constructed within the property boundaries of the project site and would not affect emergency vehicle access to the facility or any roadway. The project site would include both a primary and secondary access driveway (if required). 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. If needed, the access and service roads would also have turnaround areas at any dead-end to allow clearance for fire trucks per fire department standards.

At the time of final design for the project, and as a Condition of Approval of the project, the applicant will submit a final Haul Route Study that identifies what road improvements, if any, are requested by Department of Public Works and a cost estimate. The applicant would work with Department of Public Works to address the appropriate improvements and Applicant's responsibility for the cost of improvements, if required. The haul route study would include the following components:

1. Pictures and/or other documents to verify the existing conditions of the roads proposed to be utilized for haul routes
2. The haul route study shall evaluate impacts and provide recommendations on improvements, as well as quantity and cost estimates for such improvements

The County Department of Public Works will require a Roadway Maintenance Agreement, which would include a requirement that the applicant provide financial security to maintain the road(s) to be utilized during construction as identified on the approved haul route study. The applicant would be responsible to repair any damages caused by construction traffic during construction and maintain the applicable road(s) in a safe condition. The use of the proposed access roads is not otherwise anticipated to increase hazards because of design features or incompatible uses and no significant impact is identified.

Mitigation Measure(s)

No mitigation measures are required.

3.14.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

As presented above, construction traffic would not result in a significant impact on any of the project area roadway segments, intersections, and freeway segments. 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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3.15 Tribal Cultural Resources

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

Information for this section is summarized from the *Cultural Resources Inventory Report* prepared by Dudek. This report is included in Appendix F1 of this EIR.

3.15.1 Existing Conditions

Tribal Cultural Setting

See Section 3.6, Cultural Resources of this EIR and the *Cultural Resources Inventory Report* (Appendix F of this EIR) for a description of the regional ethnohistory.

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 (SLF). A records search of the SLF is conducted to ensure that the tribes potentially affected by a project are properly notified and consulted.

A SLF search request was submitted on August 15, 2024 to the California NAHC. The search results were received on August 28, 2024, and were positive. The NAHC response provided contact information for the 13 tribes that may have information on cultural resources on the project site.

Letters requesting information were sent via certified mail on September 3, 2024. Emails were also sent to the contacts in an effort to elicit a quicker response. As of September 3, 2024, the Viejas Band of Kumeyaay Indians have requested to be involved with monitoring efforts. Communication with the remaining tribes is ongoing.

3.15.2 Regulatory Setting

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

Federal

Native American Graves Protection and Repatriation Act (1990); Title 25, United States Code Section 3001, et seq.

The Native American Graves Protection and Repatriation Act defines “cultural items,” “sacred objects,” and “objects of cultural patrimony;” establishes an ownership hierarchy; provides for review; allows excavation of human remains, but stipulates return of the remains according to ownership; sets penalties; calls for inventories; and provides for the return of specified cultural items.

State

Assembly Bill 52

AB 52 amends PRC 5097.94, and adds eight new sections to the PRC relating to Native Americans. AB 52 was passed in 2014 and took effect on July 1, 2015. It establishes a new category of environmental impacts that must be considered under CEQA called tribal cultural resources (PRC 21074) and establishes a process for consulting with Native American tribes and groups regarding potential impacts to tribal resources. Under AB 52, a project that may substantially change the significance of a tribal cultural resource is a project that may have a significant impact on the environment. If a project may cause a significant impact on a tribal cultural resource, the lead agency shall implement measures to avoid the impacts when feasible.

Senate Bill 18

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval of any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Public Resources Code Section 21074

PRC Section 21074 defines a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, and any object with cultural value to a California Native American Tribe. A tribal cultural resource must be on or eligible for the CRHR or must be included in a local register of historical resources. The lead agency can determine if a tribal cultural resource is significant even if it has not been evaluated for the CRHR or is not included on a local register.

Assembly Bill 4239

AB 4239, passed in 1976, established the NAHC as the primary government agency responsible for identifying and cataloging Native American cultural resources. The bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites and authorized the Commission to prepare an inventory of Native American sacred sites located on public lands.

Public Resources Code 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)

PRC 5097.98 (b) and (e) require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified most likely descendants (MLD) to consider treatment options. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reenter the remains elsewhere on the property in a location not subject to further disturbance.

California Health and Safety Code, Section 7050.5

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

3.15.3 Impacts and Mitigation Measures

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

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to tribal cultural resources are considered significant if the project causes a substantial adverse change in the significance of a tribal cultural resource defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC section 5020.1(k)
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

Impact Analysis

Impact 3.15-1 ***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?

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. Notification letters were provided and sent via certified mail on September 3, 2024 and emails were also sent to the contacts in an effort to elicit a quicker response. The County requested for tribes to provide any information regarding any Traditional Cultural Properties, Sacred Sites, resource collecting areas, or any other areas of concern known to occur in the project area. To date, the Viejas Band of Kumeyaay Indians have requested to be involved with monitoring efforts. No other responses have been received at this time.

Ray Teran of the Viejas Band of Kumeyaay Indians (“Viejas”) responded via email on September 3, 2024, stating he had reviewed the proposed project and determined that the project site has cultural significance or ties to Viejas. He further noted that cultural resources have been located within or adjacent to the project site and requested that a Kumeyaay Cultural Monitor be on site for ground-disturbing activities. In addition, he requested that Viejas be informed of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains. Implementation of Mitigation Measures CUL-2 and TCR-1 would ensure that the potential impacts on unidentified tribal cultural resources do not rise to the level of significance.

Mitigation Measure(s)

TCR-1 **Discovery of Unidentified Tribal Cultural Resources.** If previously unidentified tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with Imperial County and any interested Tribes, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are determined to be a tribal cultural resource as defined in PRC Section 21074.

Significance After Mitigation

The proposed project has the potential to impact unidentified tribal cultural resources during construction. However, implementation of Mitigation Measures CUL-2 and TCR-1 would reduce this potential impact to a less than significant level.

3.15.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

At the end of the project's useful life, all equipment and facilities will be properly dismantled. No impact is anticipated from restoration activities as the ground disturbance and associated impacts will have occurred during the construction phase of the proposed project.

Residual

With implementation of Mitigation Measures CUL-2 and TCR-1, potential impacts on unidentified tribal cultural resources would be reduced to a level less than significant. No unmitigable impacts on tribal cultural resources would occur with implementation of the proposed project.

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3.16 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. The information for this section is summarized, in part, from the draft *Water Supply Assessment* (WSA) prepared for the project by Dudek. This report is included in Appendix J 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.

3.16.1 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. The project site is located within IID's Imperial Unit and district boundary and as such is eligible to receive water service.

Imported Water

The sole source of imported water supply in Imperial County is Colorado River water. IID holds senior water rights to Colorado River water and imports raw (untreated) water via the All-American canal, an 80-mile gravity flow canal that conveys an average of approximately 3.1 million acre-feet (MAF), less water transfer obligations, to the Imperial Valley annually. IID provides Colorado River water to customers in their service area via three main branches (the East Highline, Central Main, and Westside Main) and their tributary lateral canals.

The project site is adjacent to the Westside Main Canal. Lateral canals and ditches that intersect the project site include: Fern Side Main, Fig Canal, Fern Canal, Fern Lateral 2, Fern Lateral 3, Foxglove Canal, and Foxglove Lateral 1. Project parcels were historically served imported Colorado River water from IID.

As of April 2025, IID delivers untreated Colorado River water to the project site for agricultural uses through 19 gates and laterals. The 10-year record for 2015-2024 of water delivery accounting is shown in Table 3.16-1. The data documents a 10-year 7,348 acre-feet per year average.

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Table 3.16-1. Ten-Year Historic Delivery (AFY), 2015-2024

Canal/Gate	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Westside Main 14A (Brundy)	319.7	219.7	81.7	372.2	431.2	345.8	280.3	429.1	398.1	546.9
Foxglove 3 (Brundy)	507.3	322.6	530.9	585.1	527.9	502.5	395.6	525.8	477.9	582
Foxglove 1 (Downs)	437	444.7	393.4	391.4	310.8	396.3	401.4	395.2	423.3	437.5
Foxglove 2 (Downs)	426.4	462.5	394.6	386.3	316.3	347.2	413.2	398.1	404.5	465.7
Fern 15 (Gabrych/Kuhn)	431.5	232.1	380.9	310.9	288.5	304.8	356.7	330.4	228.6	243.2
Fern 22 (Gabrych/Kuhn)	793.5	0	0	408.5	993.6	1,029.4	1182.7	838.5	949.5	902.6
Fig 6 (Gabrych/Kuhn)	249.8	221.3	261	287	311.2	177.5	108.6	0	0	255.5
Fig 7 (Gabrych/Kuhn)	430.9	393.4	491	411.3	457.1	450.4	436.4	502.8	365.3	347.4
Fig 12A (Gabrych/Kuhn)	1,133.8	855.4	264	219.1	450.6	760.9	308.6	989.6	264	141.5
Fig 13 (Gabrych/Kuhn)	395.1	268.2	299.4	142.1	142.1	98.8	203.6	487	518.6	587
Fig 18 (Gabrych/Kuhn)	0	0	0	0	0	0	0	0	0	0
Westside Main 13 (LaValle Sabbia)	1,325.8	1,314.1	1,155.7	1,302.3	1,206.9	903.1	1,310.7	1,620.2	1,258.2	936.6
Westside Main 13A (LaValle Sabbia)	0	544.7	914.1	887.5	719.2	771.6	953.7	931.7	888.8	648.7

Canal/Gate	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Fern 17 (Tomlinson)	243.1	290.8	373.5	386.4	165.2	253.2	333	329	230.5	48.1
Fern 18 (Tomlinson)	27.9	69.6	113	52.8	37.9	43	46.8	47.4	131	8
Fern 20 (Tomlinson)	148.6	149.7	248.2	192.2	150.1	126.1	203.5	204.8	132.8	29.9
Fern 23 (Tomlinson)	638.4	603.1	827.6	811	817.6	603.1	680.4	778.8	209.4	0
Fern 29 (Tomlinson)	155	178.6	251.1	203.6	220.2	173.6	234.8	250.9	134.4	34.9
Fern FSM 12A (Whitmer)	0	0	0	0	0	0	0	0	0	0
TOTAL	**7,663.8**	**6,570.5**	**6,980.1**	**7,349.7**	**7,546.4**	**7,287.3**	**7,778**	**9,059.3**	**7,014.9**	**6,215.5**

Source: Appendix J of this EIR

Groundwater

The project site overlies the Imperial Valley Groundwater Basin (Basin), which is designated by the Department of Water Resources (DWR) as a very low priority basin with respect to the Sustainable Groundwater Management Act. Accordingly, groundwater is not managed under a Groundwater Sustainability Plan. Groundwater usage is regulated by Imperial County's Groundwater Ordinance contained in Title 9, Division 22, of the Land Use Ordinance, Section 92201.01. The Basin is located in the southeastern part of California and extends from the Salton Sea south to the international border with Mexico. The Basin covers approximately 1,200,000 acres, or 1,870 square miles (California Department of Water Resources 2004)).

3.16.2 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 Senate Bill 610, any project under CEQA shall provide a WSA if:

- The project meets the definition of the Water Code Section 10912:

  For the purposes of this part, the following terms have the following meanings:

  (a) ‘‘Project’’ means any of the following:

  (1) A proposed residential development of more than 500 dwelling units.

  (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

  (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

  (4) A proposed hotel or motel, or both, having more than 500 rooms.

  (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

  (6) A mixed-use project that includes one or more of the projects specified in this subdivision.

  (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

  (b) If a public water system has fewer than 5,000 service connections, then ‘‘project’’ means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that

would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

After review of Water Code Section 10912, the proposed project 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 DWR. 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.

Local

Imperial Integrated Regional Water Management Plan

The Imperial Integrated Regional Water Management Plan (Imperial 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. Approval by these 3 stakeholders met the basic requirement of California Department of Water Resources (CDWR) for an IRWMP at the time. 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.

Importantly, the Imperial IRWMP provides an assessment of the primary water resource challenges facing the Imperial Valley and their impact on long-term water supplies. As described in Chapter 5 of the Imperial IRWMP, the primary water resource challenge facing the Imperial Valley is long-term availability of Colorado River water. Multiple investigators have evaluated the impacts of climate change on flows in the Colorado River and estimate that Colorado River flows may decrease by 1 million acre-feet (MAF) to 3 MAF annually. This anticipated reduction in flows, "should not impact IID's Priority 3(a) quantified amount of 3.1 MAFY of Colorado River water as reported at Imperial Dam" (IID 2012).

While IID does not anticipate that reduced Colorado River water flows will impact their appropriation of Colorado River water, the Imperial IRWMP notes that future water demands may exceed the 3.1 MAF annual Priority 3(a) quantified appropriative right. To address this, the Imperial IRWMP identifies a suite of projects that aim to:

- Expand the size of the Imperial Valley water supply portfolio
- Prevent or recapture water leaving the region
- Reapportion water within the water supply portfolio (IID 2012)

Implementation of the Imperial IRWMP provides an opportunity to actively prioritize projects, evaluate the need to implement these projects, and identify funding opportunities.

Equitable Distribution Plan

IID's Equitable Distribution Plan apportions available water supply by Category (Agricultural, Potable Water User, and Industrial/Commercial Water User) and provides a framework for: (1) receiving Colorado River water apportionment, (2) aggregating apportionment between farms, (3) transferring agricultural water between agricultural users, and (4) receiving IID On-Farm Efficiency Conservation Program or Fallowing Program benefits. Implementation of this program is a critical component of IID's implementation of on-farm conservation and temporary fallowing programs.

Imperial Irrigation District Interim Water Supply Policy for Non-Agricultural Projects

The IID Interim Water Supply Policy (IWSP) provides a mechanism to address water supply requests for new non-agricultural projects being developed within the IID water service area. The IWSP designates up to 25,000 AFY of water to be conserved from IID's annual Colorado River water supply, consumptive use cap, for new non-agricultural projects. The IWSP 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 to offset the new demand.

Depending on the nature, complexity and water demands of the project, new projects may be charged a one-time Reservation Fee and annual Water Supply Development Fees for the contracted water volume used solely to assist in funding new water supply projects. The applicability of the fee to certain 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.

IID customers with new projects receiving water under the IWSP will be charged the appropriate water delivery rate based on measured deliveries. As of March 2025, IID has issued two water supply agreements and one "Will-Serve Letter" under the IWSP for 6,380 AFY, leaving a balance of 18,620 AFY of potential water supply available for additional conservation and contracting under the IWSP (Appendix J of this EIR).

Temporary Land Conversion Fallowing Policy

Water demands for certain non-agricultural projects are typically less than those required for agricultural operations. To support conservation and provide additional water for other uses under IID's consumptive use cap, IID developed the Temporary Land Conversion Fallowing Policy. The Temporary Land Conversion Fallowing Policy supplements the IWSP for Non-Agricultural Projects and is consistent with the IID's Equitable Distribution Plan. Water conserved through this program can be used by IID to satisfy IID's conserved water obligation and for environmental mitigation purposes.

County of Imperial General Plan

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. Table 3.16-2 provides a consistency analysis of the applicable Imperial County General Plan goals and objectives from the Conservation and Open Space Element, and Renewable Energy and Transmission Element, as they relate to the proposed project. While the 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 3.16-2. County of Imperial General Plan Consistency Analysis – Water Service

Applicable General Plan Goals and Policies	Consistency Determination	Analysis
Conservation and Open Space Element		
Preservation of Water Resources, Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	Since the project would temporarily convert agricultural land into a non-agricultural use, the proposed project would reduce the need for IID to fallow irrigation; thereby, reducing agricultural water demand.
Preservation of Water Resources, Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs.	Consistent	Currently, groundwater quality in the region is poor. However, since the project would temporarily convert farmland into a non-agricultural use, the project would reduce the amount of water used on site; thereby, reducing potential surface and groundwater pollution from agricultural uses. Additionally, the project would be required to comply with NPDES permits and regulations to address pollutants from run-off that may result during construction and operation of the proposed project.
Renewable Energy and Transmission Element		
Objective 1.6: Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.	Consistent	Water for the project site will be used on-site during construction and operation for potable, non-drinking non-potable water needs. Additionally, as further detailed in Section 3.16.3, the project would result in a decrease in water use compared to the current active agricultural uses on the project site.

Source: County of Imperial 2016; 2015b.
IID = Imperial Irrigation District; NPDES = National Pollutant Discharge Elimination System

3.16.3 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 J 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 3.16-1 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Water for construction (primarily for dust control) 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 a nearby canal or lateral and delivered to the construction location by a water truck capable of carrying approximately 4,000 gallons per load. To obtain water delivery service, the project Applicant will complete an IID-410 Certificate of Ownership and Authorization (Water Card), which provides IID the information needed to manage the IID-apportioned water supply. Water cards are used for Agriculture, Municipal, Industrial and Service Pipe accounts.

Water for the proposed project will be needed on-site for operational demands including the O&M building, fire flow storage, and panel washing (no water for dust suppression during operation required). Untreated Colorado River water will be supplied to the project site via the adjacent Westside Main Canal and 19 delivery gates (listed in Table 3.16-1which are assumed to be in good condition. The proposed project is estimated to require up to 10 AFY over 30 years. The project's operational water uses are shown in Table 3.16-3.

The proposed project's water demand is a decrease of 7,338 AFY from the historical 10-year average (7,348 AFY) or 99.9 percent less than the historic 10-year average annual delivery for agricultural uses at the project site.

Table 3.16-3. Project Operational Water Uses (AFY)

Use	Acre-Feet per Year	Total AF Over 30-Year Period
Water for Landscape Irrigation	0	0
Water for Dust Control	0	0
Water for Operation and Maintenance (30 years)	10	300
TOTAL RAW WATER USAGE	**10**	**300**

Source: Appendix J of this EIR

Imperial County estimates a cumulative, non-agricultural project water supply demand increase of up to 63,243 AFY within the foreseeable 30-year planning period, within its jurisdiction. However, all new non-agricultural projects, including the proposed project, are required to mitigate their respective water supply demand via conservation programs or conservation projects in order to receive future water apportionments.

New, non-agricultural projects may be susceptible to delivery cutbacks when an EDP Apportionment is exhausted, thus all approved projects require best management practices and water use efficiency at all times. Given the prolonged drought conditions and recent communication to IID from the Department of the Interior, reductions to all basin contractors, including IID and its water customers, are increasingly likely. If such reductions were to come

into effect within an approved project's operation, the County of Imperial will work with IID to ensure any anticipated reduction can be managed via conservations programs or conservation projects.

IID's quantified Priority 3(a) water right under the QSA/Transfer Agreements secures 3.1 MAF per year, less transfer obligations of water for IID's use from the Colorado River, without relying on rainfall in the IID service area. Even with this strong entitlement to water, IID actively promotes on-farm efficiency conservation and is implementing system efficiency conservation measures including seepage recovery from IID canals and the All-American Canal and measures to reduce operational discharge. Overall, agricultural water demand in the Imperial Valley will decrease due to IID system and grower on-farm efficiency conservation measures that are designed to maintain agricultural productivity at pre-QSA levels while producing sufficient yield-at-river to meet IID's QSA/Transfer Agreements obligations. These efficiencies combined with the conversion of some agricultural land uses to non-agricultural land uses (both solar and municipal), ensure that IID can continue to meet the water delivery demand of its existing and future agricultural and non-agricultural water users, including the proposed project for the next 20 years and for the life of the proposed project under a water supply consistent with the district's full entitlement.

Untreated Colorado River water will be supplied to the project via the adjacent Westside Main Canal under a water agreement with IID under IID's General Industrial Services rate schedule (Schedule No. 7). In the event that IID determines that the proposed project is to utilize IWSP for Non-Agricultural Projects water, the Applicant will also need to enter into an IWSP Water Supply Agreement with IID. IID has adopted an IWSP for non-agricultural projects from which water supplies can be contracted to serve new non-agricultural developments within IID's water service area. The IWSP sets aside 25,000 AFY of IID's Colorado River water supply to serve new non-agricultural projects. As of March 2025, a total of 18,620 AFY remain available for conservation for new projects providing reasonably sufficient supplies for new non-agricultural water users that enter into a Water Supply Agreement with IID. Under any fully executed water supply agreement, IID has the capacity to procure or develop water supplies for the project through the implementation of policies, the construction of water conservation projects and/or the implementation or expansion of water conservation programs. Any costs associated with this water supply development will be the responsibility of the Project Owner, as outlined in the corresponding water supply agreement, along with other terms and conditions, including the requisite environmental permitting.

The project's operational water demand of approximately 10 AFY represents 0.054 percent of the unallocated supply that may be set aside for additional conservation and contracting under the IWSP for non-agricultural projects, and approximately 0.016 percent of forecasted future non-agricultural water demands planned in the Imperial IRWMP through 2055. The water demand for the proposed project represents a 99.9 percent decrease from the 10-year historical average agricultural water use for 2015-2024 at the project site.

The historical stability of the IID water supply, the amount of foreseeable water available, along with on-farm and system efficiency conservation and other measures being undertaken by IID and its customers suggest that the proposed project's water needs will be reasonably met for the next 20 years as assessed for compliance under SB-610.

Thus, the proposed project's estimated water demand would not affect IID's ability to provide water to other users in IID's water service area. 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.

3.16.4 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, water for decommissioning (primarily for dust control) is anticipated to be obtained from IID canals or laterals in conformance with IID rules and regulations for MCI temporary water use. Decommissioning activities is anticipated to last approximately one year in duration and require less water than construction activities. Due to the relatively short-term duration of decommissioning, the project is not anticipated to affect IID's ability to provide water to other users in IID's water service area. 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.

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(e) of CEQA Guidelines, an EIR must:

> *"discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are Projects which would remove obstacles to population growth ... Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristics of some Projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

Projects promoting direct growth will impose burdens on a community by directly inducing an increase in population or resulting in the construction of additional developments in the same area. For example, projects involving expansions, modifications, or additions to infrastructure, such as sewer, water, and roads, could have the potential to directly promote growth by removing existing physical barriers or allowing for additional development through capacity increases. New roadways leading into a previously undeveloped area directly promote growth by removing previously existing physical barriers to development and a new wastewater treatment plant would allow for further development within a community by increasing infrastructure capacity. Because these types of infrastructure projects directly serve related projects and result in an overall impact to the local community, associated impacts cannot be considered isolated. Indirect growth typically includes substantial new permanent employment opportunities and can result from these aforementioned modifications.

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 January 2025 was 17.9 percent (State of California Employment Development Department 2025). 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, no permanent construction workers would be hired. The proposed project would employ 4 to 10 full-time personnel to maintain the project facility 7 days a week during normal daylight hours. As such, the proposed project would not induce substantial population growth in the area.

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 Section 15145, which provides that, if an impact is too speculative for evaluation, the agency should note this conclusion and terminate discussion of the impact. As the court explained in Napa Citizens for Honest Gov't v. Napa County Board of Supervisors, 91 Cal. App.4th 342, 368: "Nothing in the Guidelines, or in the cases, requires more than a general analysis of projected growth" *Napa Citizens, 91* CA4th at 369. The problem of uncertainty of the proposed project's growth-inducing effects cannot be resolved by collection of further data because of the diversity of factors affecting growth.

While this document has considered that the proposed 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 local or regional 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(d), an EIR must identify any significant irreversible environmental changes that would be caused by implementation of the proposed project being analyzed. Irreversible environmental changes may include current or future commitments to the use of non-renewable resources or secondary growth-inducing impacts that commit future generations to similar uses.

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 Significant and Unmitigable Impacts

In accordance with CEQA Guidelines Section 15126(c), EIRs must include a discussion of significant environmental effects that cannot be avoided if the proposed project is implemented. The impact analysis, as detailed in Section 3 of this EIR, concludes that no significant and unmitigable 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.

Figure 5-1. Cumulative Projects

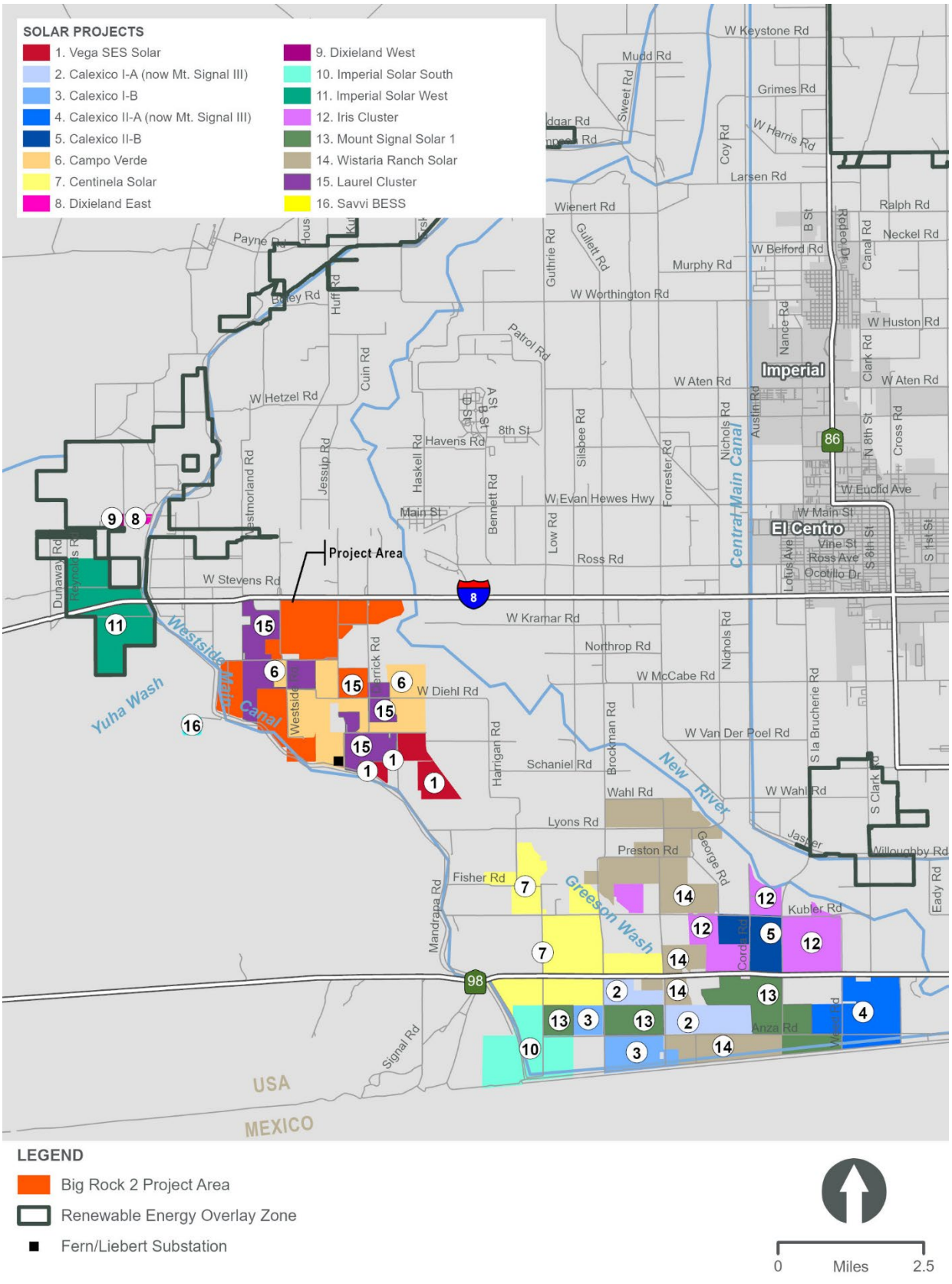

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Table 5-1. Projects Considered in the Cumulative Impact Analysis

Map Label[1]	Project Name	Project Type	Distance from Big Rock 2 Project Site	Size (Acres)	Capacity (MW)	Status[2]
1	VEGA SES Solar Energy Project	PV Solar Facility and BESS	Approximately 0.4 miles east	574	100 PV Solar/100 BESS	Pending Construction
2	Calexico I-A (now Mount Signal III)	PV Solar Facility	Approximately 6.1 miles southeast	719	100	Operational
3	Calexico I-B	PV Solar Facility	Approximately 6 miles southeast	610	100	Operational
4	Calexico II-A (now Mount Signal III)	PV Solar Facility	Approximately 9.5 miles southeast	940	100	Operational
5	Calexico II-B	PV Solar Facility	Approximately 7 miles southeast	530	100	Operational
6	Campo Verde	PV Solar Facility	This site borders of BR2	1,443	140	Operational
7	Centinela Solar	PV Solar Facility	Approximately 3.4 miles southeast	2,067	275	Operational
8	Dixieland East	PV Solar Facility	Approximately 2.6 miles northwest	31	2	Operational
9	Dixieland West	PV Solar Facility	Approximately 2.8 miles northwest	32	3	Operational
10	Imperial Solar South	PV Solar Facility	Approximately 5.4 miles southeast	946.6	200	Operational
11	Imperial Solar West	PV Solar Facility	Approximately 1.1 miles west	1,130	250	Operational
12	Iris Cluster	PV Solar Facility	Approximately 5.5 miles southeast	1,422	360	Operational
13	Mount Signal Solar I	PV Solar Facility	Approximately 5.7 miles southeast	1,431	200	Operational
14	Wistaria Ranch Solar	PV Solar Facility	Approximately 5 miles southeast	2,661	250	Operational
15	Laurel 1	PV Solar Facility	This site borders BR2			Pending Construction
	Laurel 2	PV Solar Facility	This site borders BR2			Pending Construction

Table 5-1. Projects Considered in the Cumulative Impact Analysis

Map Label[1]	Project Name	Project Type	Distance from Big Rock 2 Project Site	Size (Acres)	Capacity (MW)	Status[2]
	Laurel 3	PV Solar Facility	This site borders BR2	1,396 (combined total for Laurel 1, 2, and 3)	325 (combined total for Laurel 1, 2, and 3)	Pending Construction
16	Saavi BESS	BESS	Approximately 0.5 mile west	39.25	400	Pending Entitlement

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 on December 12, 2024.

BESS – Battery Energy Storage System; BR2=Big Rock 2; IID – Imperial Irrigation District; MW – megawatts; PV – photovoltaic

5.3.1 Aesthetics

The cumulative study area for projects considered in the visual resources cumulative impact analysis considers a 5-mile radius from the project site. Views beyond 5 miles are obstructed by a combination of the flat topography coupled with the Earth's curvature. The short-term visual impacts of the project would be in the form of general construction activities including grading, use of construction machinery, and installation of the transmission poles and stringing of transmission lines, but would only be available to a very limited amount of people and would have to be in relative close proximity to the project site. Longer-term visual impacts of the project would be in the form of the presence of solar array grids, an electrical distribution and transmission system, and substation.

As provided in Section 3.2, Aesthetics, the existing visual character of the project site and the quality of views in terms of visibility beyond the site would not be substantially altered. The primary visual change that would be experienced by viewers in the surrounding area is the introduction of numerous rows of orderly solar panels, and installation of fencing along the site perimeter. The visual changes associated with the project would not be located in proximity to any designated scenic vistas or scenic highways. Project components would have an overall minor effect on existing visual character and quality as experienced from the interstate and from local roads, the visual change associated with development of a solar facility would be similar to the approved but not yet constructed Laurel Solar 3 and 4 Projects and the existing operational Campo Verde Solar Facility that have altered the existing landscape in the project vicinity. 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. 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, implementation of the project would result in the temporary conversion of land currently under or available for agricultural production to non-agricultural uses:

- 973.24 acres of Prime Farmland
- 753.80 acres of Farmland of Statewide Importance
- 0.06 acres of Unique Farmland

Thus, the proposed project would incrementally add to the temporary conversion of agricultural land in Imperial County. According to the California Department of Conservation, in 2020, approximately 519,891 acres out of a total of 1,028,522 acres in Imperial County is classified as Important Farmland (California DOC n.d.). Table 5-2 summarizes the percentage of each type of farmland in the County that would be converted by the proposed project.

Table 5-2. Percentage Conversion of Farmland by Proposed Project

Agriculture Classification	Total Acreage in Imperial County (2020)	Approximate Acreage Converted on Project Site	Project Percentage of County Acreages
Prime Farmland	188,365	973.24	0.52
Farmland of Statewide Importance	289,002	753.80	0.26
Unique Farmland	1,767	0.06	0.00
Farmland of Local Importance	40,757	65.08	0.16
Total	**519,891**	**1,792.18**	**0.94**

Source: California DOC 2020

As shown in Table 5-2, the Prime Farmland and Farmland of Statewide Importance within the project site comprises approximately 0.78 percent (0.52 + 0.26) of the total Important Farmland in the County. Thus, the proposed project would temporarily convert a very small fraction of the total Important Farmlands in the County and have a minimal effect on agricultural land on a cumulative scale. Furthermore, the conversion would be temporary and last for the duration of the project's useful life which is expected to be up to 30 years.

Development of the solar energy facility, BESS, and supporting infrastructure is subject to the County's zoning ordinance. The project site is located on 24 privately-owned legal parcels zoned A-2, A-2-RE, A-2-R, A-2-R-RE, A-3, and A-3-RE.

Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- *Facilities for the transmission of electrical energy (100-200 kv)*

- *Resource extraction and energy development as per Division 17*
- *Solar energy electrical generator*

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:

- *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). The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Communication Towers: including radio, television, cellular, digital, along with the necessary support equipment such as receivers, transmitters, antennas, satellite dishes, relays, etc.*
- *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. The maximum allowance of battery shall be in a ratio of 2 to 1 compared to solar.*
- *Solar energy plants meeting the requirements in Division 17*

Upon approval of a CUPs, the project's uses would be consistent with the Imperial County Land Use Ordinance and thus, is also consistent with the General Plan land use designations of the site. Additionally, as a condition of project approval, 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.

As discussed in Section 3.3, Agricultural Resources, Mitigation Measure AG-1a (Payment of Agricultural and Other Benefit Fees), AG-1b (Site Reclamation Plan), and AG-2 (Pest Management Plan) would be implemented to reduce potential impacts on agricultural resources to a level less than significant. 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, a majority of the projects listed in Table 5-1 are already constructed and operational. 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 $PM_{2.5}$.

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 that are pending construction (Laurel I, Laurel II, and Laurel III), or pending entitlement (Saavi BESS) identified in Table 5-1 would result in the generation of air emissions during construction activities.

With respect to the proposed project, during the construction and decommissioning phases, the project would generate PM_{10}, $PM_{2.5}$, ROG, CO, and NO_X emissions during each active day of construction.As discussed in Section 3.4, Air Quality, the emissions of criteria pollutants from project construction activities would exceed the ICAPCD significance threshold for PM_{10}. This potential impact is considered significant. However, implementation of Mitigation Measures AQ-1 through AQ-5 would minimize construction emissionsWith implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant.

The proposed project, in conjunction with the construction of other cumulative projects as identified in Table 5-1, could result in a cumulatively considerable increase in the generation of PM_{10}, $PM_{2.5}$, and NO_x; however, like the proposed project, cumulative projects would be subject to mitigation pursuant to County ICAPCD's Regulations and Rules, and the cumulative impact would be reduced to a level less than significant through compliance with these measures. Because the project will be required to implement measures consistent with ICAPCD regulations designed to alleviate the cumulative impact associated with PM_{10}, the proposed project's contribution is 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 mitigation requiring compliance with all applicable regulations that protect plant, fish, and animal species, as well as waters of the U.S. and state. Other cumulative projects would also be required to avoid impacts on special-status species and/or mitigate to the satisfaction of the CDFW and USFWS for the potential loss of habitat.

As described in Section 3.5, Biological Resources, the project would have the potential to result in impacts on biological resources. These impacts are generally focused on potential construction-related effects to burrowing owls, raptor species (California Black Rail, Yuma Ridgeway's Rail, and northern harrier), d migratory birds, and bats. Additionally, project construction has the potential to result in direct and indirect impacts on nesting birds.

Burrowing Owls are protected by the CDFW mitigation guidelines for burrowing owl (CDFW 2012) and Consortium guidance (1993), which require a suite of mitigation measures to ensure direct effects to burrowing owls during construction activities are avoided and indirect effects through burrow

destruction and loss of foraging habitat are mitigated at prescribed ratios. Mitigation measures identified in Section 3.5, Biological Resources, would ensure that all regulations required to protect burrowing owls, raptor species, and migratory birds, are implemented, thereby minimizing potential impacts on these species to a less than significant level. Similarly, the cumulative projects within the geographic scope of the project would be required to comply with the legal framework as described above. Based on these considerations, impacts on biological resources would not be cumulatively considerable.

As with the proposed project, each of the cumulative projects would be required to provide mitigation for impacts on biological resources. The analysis below is conducted qualitatively and in the context that the cumulative projects would be subject to a variety of statutes and administrative frameworks that require mitigation for impacts on biological resources.

Birds listed at 50 CFR 10.3 are protected by the MBTA (16 USC 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of Birds listed at 50 CFR 10.3 are protected by the MBTA (16 USC 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The MBTA is enforced by USFWS. This act prohibits the killing of any migratory birds without a valid permit. Any activity which contributes to unnatural migratory bird mortality could be prosecuted under this act. With few exceptions, most birds are considered migratory under this act. Raptors and active raptor nests are protected under California FGCs 3503.5, 3503, and 3513.

The CWA and California's Porter-Cologne Water Quality Control Act provide protection for water-related biological resources by controlling pollution, setting water quality standards, and preventing jurisdictional streams, lakes, and rivers from being filled without a federal permit. No jurisdictional wetlands are located with the project site that could otherwise be directly impacted by construction of the proposed project. Likewise, Mitigation Measures HYD-1 and HYD-2 would be required to avoid or minimize potential water quality impacts that could otherwise indirectly impact biological resources. Further, the proposed project would result in a net decrease in water demand, which would provide a benefit to IID's water budget and available supply for the Salton Sea. Implementation of the project would result in fallowing of currently irrigated agricultural fields. The IID's "Imperial Valley Natural Community Conservation Plan and Habitat Conservation Plan Planning Agreement No. 2810-2004-001-06 (February 2006) covers water conservation and irrigation and drainage of land to which IID delivers water to which the environmental impacts and various approaches to mitigate potential impacts to the Salton Sea include fallowing agricultural lands as identified in the HCP Final EIR/EIR. EIR Section 3.16 discusses the IID's Interim Water Supply Policy (IWSP) for Non-Agricultural Projects and Temporary Land Conversion Fallowing Policy (TLCFP) adopted by the IID and according to the TLCFP "This fallowing program satisfies multiple district objectives and service to reduce the conservation and water use demands on other IID water uses and thus provide district-wide benefits."

Given the above, the project 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, 7 previously recorded cultural resources were identified within the project site during field surveys. Under Impact 3.6-1, the eligibility of the identified resources were discussed. None of the 7 previously recorded cultural resources were determined eligible for listing in the CRHR or NRHP.

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 Measures CUL-1 and CUL-2 would reduce potential impacts associated with the unanticipated discovery of unknown buried archaeological resources. Implementation of Mitigation Measure CUL-3 would reduce potential impacts on human remains to a level less than significant.

Future projects with potentially significant impacts on cultural resources would be required to comply with federal, state, and local regulations and ordinances protecting cultural resources through implementation of similar project-specific mitigation measures during construction. Therefore, through compliance with regulatory requirements, standard conditions of approval, and Mitigation Measures CUL-1 through CUL-3, 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 archaeological 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 additive to the project's site-specific geology and soils impacts; therefore, no cumulatively considerable effects are identified for geology/soils, and cumulative impacts would be less than significant.

Development of the proposed project, in combination with other projects in the area, has the potential to contribute to a cumulatively significant paleontological resources impact due to the potential loss of paleontological resources unique to the region. However, mitigation is included in this EIR to reduce potentially significant project impacts to paleontological resources during construction of the proposed project. Implementation of Mitigation Measures GEO-3 and GEO-4 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 Measures

GEO-3 and GEO-4, 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.

SCAQMD considers projects that generate more than 10,000 $MTCO_2e$ per year to be significant. the SCAQMD's significance threshold of 10,000 $MTCO_2e$ per year for industrial projects is intended for long-term operational GHG emissions. The SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over an assumed project lifetime of 30 years and added to operational emissions and then compared to the threshold.

As discussed in Section 3.8, Greenhouse Gas Emissions, the project would result in the generation of approximately 3,470 $MTCO_2e$, or approximately 112 $MTCO_2e$ annually amortized over a 30-year period. Therefore, the construction emissions are less than the SCAQMD's threshold of 10,000 $MTCO_2e$ per year. As the project's emissions do not exceed the SCAQMD's threshold, the proposed project would not result in a cumulatively considerable impact to GHG emissions and would not conflict with the State GHG reduction targets. Other cumulative projects identified in Table 5-1 largely consist of utility-scale solar facilities. The nature of these projects is such that, like the project, they would be consistent with the strategies of the Climate Change Scoping Plan. In order to meet the AB 32 GHG emissions reduction mandate, the Scoping Plan relies on achievement of the RPS target of 33 percent of California's energy coming from renewable sources by 2020 and 50 percent by 2030. The RPS target was updated in September 2018 under SB 100 to 60 percent by 2030. The project and other similar projects are essential to achieving the RPS.

Given that the project is characterized as a renewable energy project and places emphasis on solar power generation, project operations would be almost carbon-neutral with the majority of the operational GHG emissions associated with vehicle trips. Based on these considerations, no significant long-term operational GHG impacts would occur and, therefore, project-related GHG impacts would not be cumulatively considerable.

5.3.8 Hazards and Hazardous Materials

The geographic scope considered for cumulative impacts from health, safety, and hazardous materials is the area within 1 mile of the boundary of the project sites. 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) would reduce water quality impacts. As with the proposed project, each of the cumulative projects would be required to comply with the Construction General Permit. The SWRCB has determined that the Construction General Permit protects water quality, is consistent with the CWA, and addresses the cumulative impacts of numerous construction activities throughout the state. This determination in conjunction with the implementation of mitigation would ensure short-term water quality impacts are not cumulatively considerable.

The project is not expected to result in long-term operations-related impacts related to water quality. The project would mitigate potential water quality impacts by implementing site design, source control, and treatment control BMPs, as outlined in Mitigation Measures HYD-1 and HYD-2. Some cumulative projects would require compliance with the SWRCB's NPDES general permit for industrial activities, as well as rules found in the CWA, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the RWQCB. With implementation of SWRCB, Colorado River RWQCB, and County policies, plans, and ordinances governing land use activities that may degrade or contribute to the violation of water quality standards, cumulatively considerable impacts on water quality would be minimized to a less than significant level.

Based on a review of the FEMA Flood Insurance Rate Map FIRM, the proposed project site is 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 effects.

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 if all entitlements (General Plan amendment, Conditional Use Permits, and Zone Change) are approved by the County Board of Supervisors. In addition, a majority of the cumulative projects identified in Table 5-1 would not result in a conflict with applicable land use plans, policies, or regulations. In the event that incompatibilities or land use conflicts are identified for other projects listed in Table 5-1, 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 also 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 projects' 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 direct 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.

Construction equipment noise from the related projects identified in Table 5-1would be similar in nature and magnitude to those discussed for the project in Section 3.12, Noise and Vibration. Specifically, noise levels from on-site construction activities would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The site preparation phase would be anticipated to generate the most substantial noise levels as the on-site equipment associated with grading, compacting, and excavation tend to be the loudest. 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 constructed within the A-2, A-2-R, and A-3 zones, and components of the project associated with noise during operation 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 Ldn).

Thus, the incremental contribution of the project to significant cumulative noise impacts would not be cumulatively considerable.

5.3.12 Public Services

The project would result in increased demand for public services (fire protection service and law enforcement services) (Section 3.13, Public Services). Future development in the Imperial Valley, including projects identified in Table 5-1, would also increase the demand for public services. In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of public services within their jurisdictional boundaries. In conjunction with the project's approval, the project applicant would also be conditioned to ensure sufficient funding is available for any fire protection or prevention needs and law enforcement services. Based on the type of projects proposed (e.g., solar energy generation and battery storage), their relatively low demand for public services other than fire and police, it is reasonable to conclude that the project would not increase demands for education, or other public services. Service impacts associated with the project related to fire and police would be addressed through payment of impact fees as part of the project's Conditions of Approval to ensure that the service capabilities of these departments are maintained. Therefore, no cumulatively considerable impacts would occur.

5.3.13 Transportation

As stated in Section 3.14, Transportation, during the construction phase of the project, the maximum number of trips generated on a daily basis would be approximately 1,016 trips (1,032 passenger car equivalent). Construction-related trips are temporary and would not generate permanent trips. As a condition of approval under the project's CUP(s), a traffic control plan as part of a Construction Traffic Management Plan (CTMP) would be implemented by the project applicant or contractor to reduce potential impacts at affected intersections (see 3.14, Transportation).

The majority of the projects listed in Table 5-1 are already constructed. As shown on Table 5-1, there are cumulative projects that pending construction (Laurel I, Laurel II, and Laurel III), or pending entitlement (Saavi BESS). The construction phasing of these projects is not anticipated to overlap with the proposed project. Furthermore, the cumulative projects are not anticipated to use the same construction haul route as the proposed project. During operations, the proposed project would generate up to 20 trips per day. Based on the low amount of operational trips generated and low existing traffic volumes on area roadways, no substantial transportation impacts are anticipated. Based on these findings, the project would not result in cumulatively considerable roadway or intersection impacts, and this impact would be less than significant.

5.3.14 Tribal Cultural Resources

As discussed in Section 3.15, Tribal Cultural Resources, the County requested for tribes to provide any information regarding any Traditional Cultural Properties, Sacred Sites, resource collecting areas, or any other areas of concern known to occur in the project area. To date, the Viejas Band of Kumeyaay Indians ("Viejas") have requested to be involved with monitoring efforts. The proposed project was determined to have cultural significance or ties to Viejas. As a result, implementation of Mitigation Measures CUL-3 and TCR-1 would ensure that the potential impacts on unidentified tribal cultural resources do not rise to the level of significance. Other projects listed in Table 5-1 would potentially be located in sensitive areas where unidentified tribal cultural resources may exist. Therefore, future cumulative projects would also be required to comply with the requirements of AB

52 to determine the presence/absence of tribal cultural resources and engage in consultation to determine appropriate mitigation measures to minimize or avoid impacts on tribal cultural resources. Based on these considerations, the project would not contribute to or result in a significant cumulatively considerable impact tribal cultural resources.

5.3.15 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 proposed project would not require or result in the relocation or construction of new or expanded wastewater facilities, storm water facilities, or water facilities. Additionally, the project would be comprised of mostly recyclable materials and would not generate significant volumes of solid waste that could otherwise contribute to significant decreases in landfill capacity. Based on these considerations, the project would result in less than significant impacts on existing utility providers and, therefore, would not result in cumulatively considerable impacts.

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 specifically related to forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Therefore, implementation of the proposed project would not impact forestry resources.

6.2 Energy

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, and petroleum-based fuel supplies and distribution systems. The proposed project would not utilize any natural gas during either construction or operation of the proposed project, and no further analysis of natural gas is provided in this analysis.

The following discussion discusses the potential energy consumption associated with the construction and operation of the proposed project and analyzes if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

6.2.1 Energy Consumption

Collectively, the proposed project would generate up to a combined 500 MW of alternating current (AC) on a daily basis and up to 500 MW of battery storage. 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 projects: the equipment fuel necessary for construction and the automotive fuel necessary for ongoing maintenance activities. 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.

Construction

Energy consumption for diesel and gasoline associated with the proposed project is summarized in Table 6-1 and Table 6-2, respectively.

Table 6-1. Proposed Construction Energy Consumption – Diesel

Timing	CO2 Metric Tons (kg CO2/gallon)	Energy Consumption (gallons)
Phase 1 – 2026	499	48,913
Phase 2 – 2026	423	41,408
Phase 3 – 2026	786	76,964
Phase 3 – 2027	271	26,503
Phase 4 – 2027	119	11,673
Phase 5 – 2050	910	89,100
Total Project Diesel	**--**	**294,561**

Source: HDR 2024

Table 6-2. Proposed Construction Energy Consumption – Gasoline

Timing	CO2 Metric Tons (kg CO2/gallon)	Energy Consumption (gallons)
Phase 1 – 2026	63	7,185
Phase 2 – 2026	99	11,263
Phase 3 – 2026	805	91,655
Phase 3 – 2027	680	77,449
Phase 4 – 2027	48	5,465
Phase 5 – 2050	1,212	138,059
Total Project Diesel	**--**	**331,076**

Source: HDR 2024

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 6-1 and Table 6-2, construction of the proposed project would result in a total consumption of approximately 625,637 gallons of total fuel (294,561 gallons of diesel and approximately 331,076 gallons of gasoline).

According to the 2023 California Annual Retail Fuel Outlet Report Results (CEC-A15), gasoline and diesel sales in Imperial County in 2023 is estimated at 74 million gallons and 27 million gallons, respectively (CEC 2024b). Accordingly, the estimated 294,561 gallons of diesel fuel required during project construction would represent approximately 0.011 percent of total diesel sales in Imperial County. The estimated 331,076 gallons of gasoline required during project construction would represent approximately 0.004 percent of total gasoline sales in Imperial County.

Fuel energy consumed during project construction would be temporary and would not represent a substantial demand on energy resources. In addition, energy conservation would occur during project construction through compliance with the CARB anti-idling and emissions regulations, which require that equipment not used for more than five minutes be turned off. Compliance with these regulations would result in less fuel combustion and energy consumption and thus minimize the project's

construction-related energy use. Project construction equipment would also be required to comply with EPA and CARB engine emission standards. These emission standards require highly efficient combustion systems to maximize fuel efficiency and reduce unnecessary fuel consumption. Furthermore, construction activities associated with the proposed project would be required to adhere to all State and ICAPCD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources.

Construction-Related Electricity

During construction of the proposed project, electricity would be consumed to construct the new structures and infrastructure. Electricity would be supplied to the project site by IID and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on energy use. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Energy generated by the project would be collected using up to 66 kilovolt (kV) collector lines. A 230-kV overhead gen-tie transmission line is anticipated to link the project substation to the Liebert Switchyard, which will then be connected via an overhead 230-kV gen-tie line to the existing SDG&E Imperial Valley Substation, which would provide adequate capacity to handle the power generated and utilized by the proposed project. Where feasible, the new service installations and connections would be scheduled and implemented in a manner that would not result in electrical service interruptions to other properties. Compliance with County and IID guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Operations

Once operational, electricity required during operations would be greatly offset by the electricity produced by the solar facility. Specifically, operation of renewable energy facility would offset GHG emissions by replacing energy generated by fossil fuel power plants. The project would generate up to 500 MW of renewable energy, of which 500 MW net of energy would be added to the power grid. In addition, the proposed project would provide up to 500 MW of battery storage. This renewable energy would be used in place of electricity generated by fossil fuel sources. Therefore, the proposed project would result in a less than significant impact. No impact would occur from electricity-related energy consumption from the proposed project.

It should be noted that, the proposed project would comply with all Federal, State, and County requirements related to the consumption of transportation energy and would provide a non-carbon

source of electricity to power electric vehicles in Imperial County. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant.

6.2.2 Compliance with State or Local Plans for Renewable Energy or Energy Efficiency

The purpose of the proposed project is to construct a renewable energy and storage facility in Imperial County. Once in operation, it will decrease the need for energy from fossil fuel–based power plants in the state. The result would be a net increase in electricity resources available to the regional grid, generated from a renewable source. The proposed project would help California meet its Renewable Portfolio Standard of 60 percent of retail electricity sales from renewable sources by the end of 2030 and 100 percent by 2045. 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.

6.4 Population and Housing

Development of housing is not proposed as part of the project. Project construction would involve the use of temporary workforce, however, once operational, the project will only involve approximately 4 to 10 employees for O&M activities. 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

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. The number of construction and operational workers coming to the region is low and is not expected to increase demand for schools or require the construction of new schools. The proposed project would have a less than significant impact on Imperial County schools.

Parks and Other Public Facilities. The number of construction and operational workers coming to the region is low and is not expected to increase on existing or future parks. Therefore, substantial permanent increases in population that would adversely affect local parks, libraries, and other public facilities are not expected. The project is expected to have a less than significant impact on parks, libraries, and other public facilities.

6.6 Recreation

The project site is not used for formal recreational purposes. The project would be staffed with 4 to 10 full-time employees. 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. The workforce required to construct the project is anticipated to come from existing populations that live in or commute from the surrounding local community. 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 proposed 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. Operation of the proposed project would require a total of 4 to 10 on-site full-time employees and will include an O&M building. Wastewater generation would be minimal. The project's wastewater will be treated via on-site septic systems, designed to meet operation and maintenance guidelines required by Imperial County laws, ordinances, regulations, and standards. The proposed project would not exceed wastewater treatment requirements of the RWQCB and this is considered a less than significant impact.

Storm Water Facilities. The proposed project would 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 would not require or result in the relocation or construction of storm drainage facilities off site (i.e., outside of the project footprint) because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events, 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. This is considered a less than significant impact.

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. Therefore, impacts would be less than significant.

Solid Waste Facilities. Solid waste generation would be minor for the construction and operation of the Project. Solid waste during construction 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 southeast of the project site. The Calexico Solid Waste Site has approximately 1,561,235 cubic yards of remaining capacity is estimated to remain in operation through 2179 (CalRecycle 2024). 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 CUPs 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 2023). 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:

- Provide renewable energy to the electric grid to meet increasing demand for in-state generation and provide energy storage that can be dispatched to the regional grid during times of greatest energy demand.
- Integrate the proposed project operating facilities with previously proposed and entitled PV solar and BESS projects in the project vicinity to maximize economies of scale.

- Provide annual revenues consistent with the Public Benefit Program for Solar Power Plants in Imperial County (Amended May 9, 2023, by the Board of Supervisors) that directly supports Agriculture, Community Benefits Funds, and Public Services (e.g., Sheriff, Public Health, Fire Department) within Imperial County.
- Assist the County in continuing the goal in the Energy Element of its General Plan to develop large scale solar energy development as a major energy source in the County.
- Promote economic development and bring regionally defined living-wage jobs to the region throughout the life of the proposed Project.
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established in 2006 under California Assembly Bill 32, the Global Warming Solutions Act of 2006, which requires the California Air Resources Board to reduce statewide emissions of greenhouse gases (GHGs) to at least the 1990 emissions level by 2020. This timeline was updated in 2016 under SB 32, which requires that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit by 2030.
- Support California's Renewable Portfolio Standards (RPS) Program consistent with the timeline established by SB 100 (De León, also known as the "California Renewables Portfolio Standard Program: emissions of greenhouse gases") as approved by the California Legislature and signed by Governor Brown in September 2018, which established a 50 percent RPS goal by December 31, 2026, 60 percent by December 31, 2030, and a goal that 100 percent of electric retail sales to end-use customers be provided by renewable energy and zero-carbon resources by 2045.
- Utilize historically farmed lands that could otherwise be fallowed due to current and future water shortages, thereby providing local farmers and/or agricultural landowners in Imperial County an alternative to the economic losses associated with limiting their agricultural production.

7.3 Alternatives Considered but Rejected

7.3.1 Alternative Site

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

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

to the fact that the proponent does not have control of an alternate site. Therefore, an alternative site was eliminated from further consideration in this EIR.

7.4 Alternative 1: No Project/No Development Alternative

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

The No Project/No Development Alternative assumes that the project, as proposed, would not be implemented and the project site would not be further developed with a solar energy project. The No Project/No Development Alternative would not meet any of the project objectives.

7.4.1 Environmental Impact of Alternative 1: No Project/No Development Alternative

Aesthetics

Under the No Project/No Development Alternative, the project site would not be developed and would continue to be agricultural 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. As discussed in greater detail in Section 3.2, Aesthetics, the proposed project would result in a less than significant impact associated with introduction of new sources of light and glare. Under this alternative, no impacts related to light, glare, and aesthetic impacts would occur.

Agricultural Resources

Under the No Project/No Development Alternative, the project site would not be developed and would continue to be utilized as agricultural land. Compared to the proposed project, implementation of this alternative would avoid the conversion of land designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland per the FMMP. Therefore, this alternative would not contribute to the conversion of agricultural lands or otherwise adversely affect agricultural operations and mitigation would not be required. Compared to the proposed project, this alternative would avoid the need for future restoration of the project site to pre-project conditions. This alternative would avoid any agricultural impacts associated with the proposed project.

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 exceed the ICAPCD's significance thresholds for emissions of PM_{10} during construction of the project. 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). Furthermore, implementation of Mitigation Measure AQ-2 would ensure construction equipment will be equipped with an engine designation of EPA Tier 4 engine. Further, implementation of Mitigation Measure AQ-3 would require additional dust suppression methods (such as water or chemical stabilization) on all unpaved roads associated with construction activities, Mitigation Measure AQ-4 requires development and implementation of a dust suppression management plan prior to any earthmoving activity, and Mitigation Measure AQ-5 limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Accordingly, with implementation of Mitigation Measures AQ-1 through AQ-5, PM_{10} emissions would not exceed the ICAPCD significance threshold. Therefore, this impact would be reduced to a level less than significant.

This alternative would not result in 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. Compared to the proposed project, this alternative would avoid significant air quality impacts.

Biological Resources

Under the No Project/No Development Alternative, existing biological resource conditions within the project site would largely remain unchanged and no impacts would occur. Unlike the proposed project which requires mitigation for biological resources including 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 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), soil erosion, liquefaction, lateral spreading, subsidence, collapsible soils, expansive soils, corrosive soils, suitability of soils for supporting septic tanks, and paleontological resources. In contrast, the proposed project would require the incorporation of mitigation measures related to potential seismic hazards, soil erosion, liquefaction, lateral spreading, subsidence, collapsible soils, expansive soils, corrosive soils, suitability of soils for supporting septic tanks, and paleontological resources to minimize impacts

to a less than significant level. 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 (e.g., SB X1-2) 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.

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. Therefore, compared to the proposed project, this alternative would avoid impacts to hydrology and water quality.

Land Use/Planning

As discussed in Section 3.11, Land Use/Planning, the proposed project would not physically divide an established community or conflict with applicable plans, policies, or regulations. Under the No Project/No Development Alternative, the project site would not be developed and continue to be utilized as agricultural land. Current land uses would remain the same. No General Plan Amendment, Zone Change, or CUPs would be required under this alternative. Under this alternative, no existing community would be divided, and no inconsistencies with planning policies would occur. No land use impacts would occur.

Noise and Vibration

This alternative would not require construction or operation of the project; therefore, this alternative does not have the potential to temporarily increase ambient noise levels within the vicinity of the project site and affect sensitive receptors. As discussed in Section 3.12, Noise and Vibration, the proposed project would not result in significant noise impacts on sensitive receptors during construction and operation. Compared to the proposed project, this alternative would not generate noise and would not result in any noise or vibration impacts.

Public Services

The No Project/No Development Alternative would not increase the need for public services which would otherwise be required for the proposed project (additional police or fire protection services). Therefore, no impact to public services is identified for this alternative.

Transportation

There would be no new development under the No Project/No Development Alternative. Compared to the proposed project, 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, result in inadequate emergency access, or conflict with public transit, bicycle, or pedestrian facilities.

Tribal Cultural Resources

The proposed project would involve ground-disturbing activities that have the potential to disturb previously undocumented tribal cultural resources. 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 potential impacts to tribal cultural resources.

Utilities and Service Systems

Compared to the proposed project, 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. Therefore, this alternative would result in no impacts to existing utilities or 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 (California Global Warming Solutions Act of 2006).

7.5 Alternative 2: Reduced Project Site

The purpose of this alternative is to reduce impacts on Prime Farmland within the project site. As discussed in Section 3.3, Agricultural Resources, implementation of the project would result in the temporary conversion of 973.24 acres of Prime Farmland to non-agricultural uses. A majority of the Prime Farmland occurs within the Big Rock 2 Cluster North Site and Big Rock 2 Cluster West Site. This alternative would reduce the overall size of the solar facility by avoiding the Prime Farmland occurring within the Big Rock 2 Cluster North Site and Big Rock 2 Cluster West Site. This alternative would avoid developing parcels that contain large areas of Prime Farmland. (NOTE: this alternative would not avoid several pockets of Prime Farmland as shown in Figure 7-1, as these represent small, isolated pockets of land, which would likely not remain economically viable or practically feasible to farm as they would be surrounded by solar uses). Therefore, the project site would be reduced by approximately 788 acres from a total of 1,849 acres to 1,061 acres.

Aesthetics

Under Alternative 2, the overall size of the solar energy facility would be reduced. No significant visual aesthetic impact has been identified as the proposed project's facilities would not impact scenic resources, result in the substantial degradation of the existing visual character of the project 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.

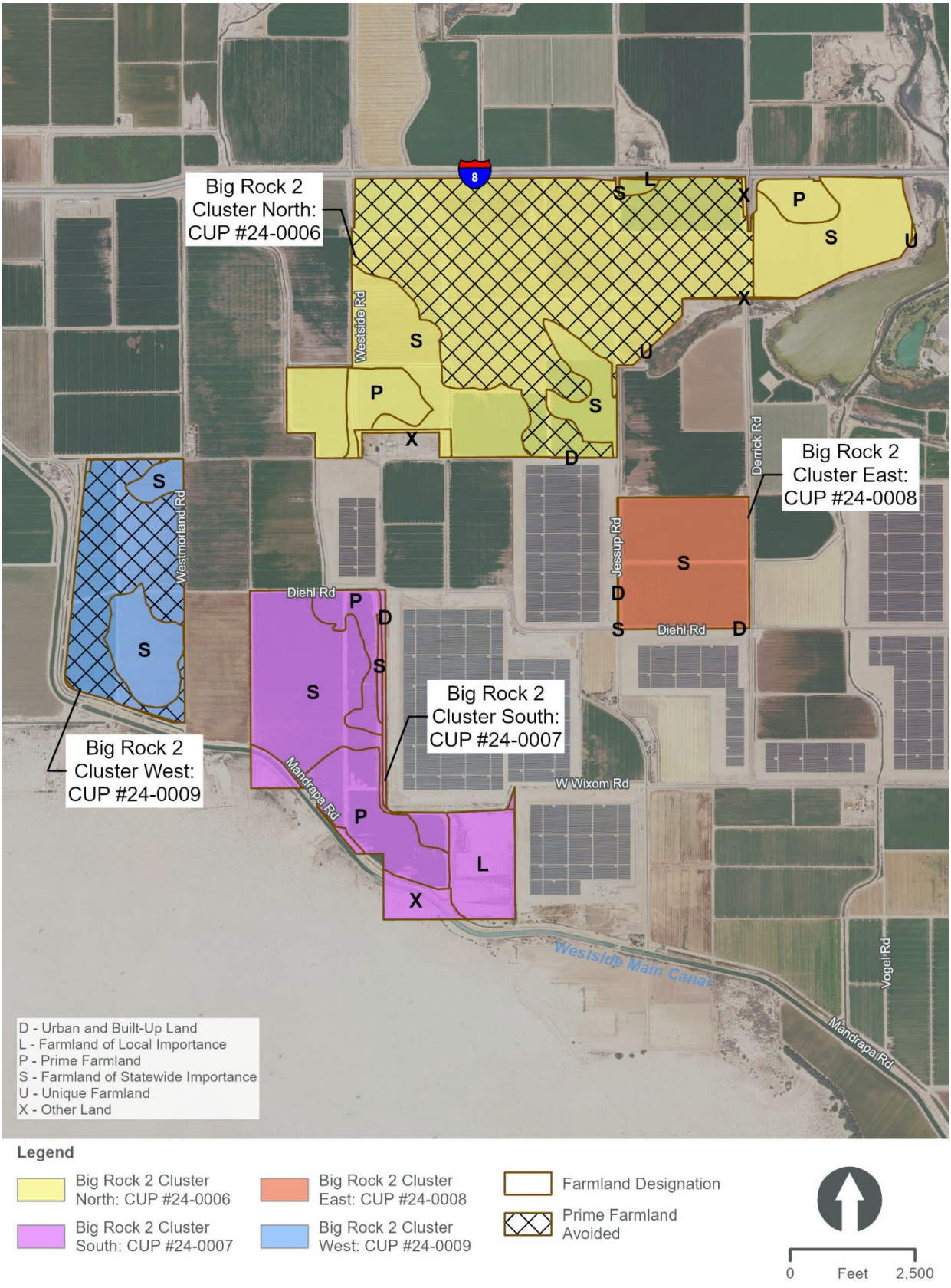
Agricultural Resources

Under Alternative 2, the conversion of approximately 788 acres of Prime Farmland to non-agricultural uses would be avoided within the Big Rock 2 Cluster North Site and Big Rock 2 Cluster West Site. However, the proposed project would still result in the conversion of pockets of Prime Farmland within the overall project site, as well as Farmland of Statewide Importance and Unique Farmland, and would still require mitigation for the temporary conversion of Important Farmland to non-agricultural uses to reduce significant impacts to a level less than significant. Impacts associated with contributing to the conversion of other agricultural lands or otherwise affecting agricultural operations would still occur, but would be less than would occur under the proposed project. Compared to the proposed project, this alternative would result in less of an impact on agricultural resources as compared to the proposed project.

Air Quality

Under Alternative 2, air emissions during construction would be less than the proposed project because of the reduced site development. A less than significant impact with mitigation incorporated has been identified for the proposed projects 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 AQMPs and would not result in the creation of objectionable odors. This alternative would provide less MW generation compared to the proposed project, thereby reducing its ability to provide a long-term source of renewable energy. Compared to the proposed project, while this alternative would result in less air quality impacts, it would likely provide fewer desirable benefits to overall regional air quality as attributable to the proposed project. Compared to the proposed project, this alternative would result in less air quality impacts.

Figure 7-1. Alternative 2 – Reduced Project Site



Biological Resources

Under Alternative 2, the overall size of the solar energy facility would be reduced. Although the overall size of the solar energy facility would be reduced, there is still potential for impacts on special-status species. 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, 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 related to monitoring for inadvertent discovery.

Geology and Soils

Under Alternative 2, while the overall project footprint would be reduced, grading and construction of new facilities would still occur. Similar to the proposed project, this alternative would also be subject to potential impacts related to local seismic hazards (strong ground shaking), soil erosion, liquefaction, lateral spreading, subsidence, collapsible soils, expansive soils, corrosive soils, suitability of soils for supporting septic tanks, and paleontological resources, and incorporation of mitigation measures would be required to minimize these impacts to a less than significant level. This alternative would result in similar geology and soil and paleontological resources impacts as the proposed project.

Greenhouse Gas Emissions

Under Alternative 2, the overall project footprint would be reduced, 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 SCAQMD's screening threshold of 10,000 metric tons of CO_2e per year. 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. This alternative would have a similar impact as 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. Similar to the proposed project, 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.

Hydrology/Water Quality

Alternative 2 would result in modifications to the existing drainage patterns and the volume of storm water runoff, as this alternative would introduce impervious area on-site, although to a lesser degree than the proposed project. Because the overall project footprint would be reduced, this alternative would realize a minor reduction in the corresponding impacts on hydrology and on-site drainage; however, the same mitigation measures would be applicable to this alternative. Compared to the proposed project, this alternative would result in less of an impact on hydrology/water quality.

Land Use Planning

Implementation of this alternative would not avoid or reduce a land use and planning impact, as no significant impact associated with the project has been identified. As with the proposed project, this alternative would be consistent with the County Land Use Ordinance, Division 17, RE Overlay Zone, which authorizes the development and operation of RE projects with approved CUPs. 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. This alternative would have similar noise impacts as the proposed project.

Public Services

Alternative 2 would require increased public services, specifically law enforcement and fire protection services. While the solar facility would be slightly smaller, the impacts of this alternative to public services and associated service ratios would be similar. Like the proposed project, this alternative would be conditioned to provide law enforcement and fire service development impact fees. Therefore, this alternative would result in a similar impact related to public services as 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

Although the overall size of the solar energy facility would be reduced, this alternative would still require ground-disturbing activities, which has the potential to disturb undocumented tribal cultural resources. Compared to the proposed project, this alternative would result in a reduction in impacts on tribal cultural resources because of the reduced site development, but would still require mitigation.

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, tribal cultural resources, 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, 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.

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 be the environmental superior alternative because it 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, tribal cultural resources, and utilities/service systems.

Table 7-1. Comparison of Alternative Impacts to Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Aesthetics	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No 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:* No 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:* No Impact (Avoid)	*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:* No 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:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact

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:* No 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:* No 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:* No 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:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Land Use/Planning	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Noise and Vibration	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *No Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: Reduced Project Site
Public Services	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* *No Impact*	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Transportation	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact	*CEQA Significance:* Less than Significant *Comparison to Proposed Project:* Similar Impact
Tribal Cultural Resources	Less than Significant with Mitigation	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No Impact (Avoid)	*CEQA Significance:* Less than Significant with Mitigation *Comparison to Proposed Project:* Less Impact
Utilities/Service Systems	Less than Significant	*CEQA Significance:* No Impact *Comparison to Proposed Project:* No 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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