Westside Canal Battery Storage Project

Draft Environmental Impact Report

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Prepared for:

Imperial County
Planning & Development Services
Attn: David Black, Planner III
801 Main Street
El Centro, California 92243

Prepared by:

Stantec Consulting Services Inc.
290 Conejo Ridge Avenue
Thousand Oaks, California 91361

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A.2 CED Westside Canal Energy Storage Project, NOP of a Draft EIR, GPA-19-0003, ZC19-0004 and CUP19-0015, Imperial Irrigation District, May 14, 2020

A.2 Correspondence with Department of Toxic Substances Control: Robert Krug, May 15, 2020

A.2 Correspondence with Imperial County Fire Department: Andrew Loper and Gabriela Robb, May 15, 2020

A.2 CED Westside Canal Battery Storage, Imperial County Air Pollution Control District, May 18, 2020

A.2 Westside Canal Storage Battery Project, NOP/IS SCH #2020040122, Department of Transportation, May 18, 2020

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EXECUTIVE SUMMARY

This Draft 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 1500 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 effect associated with the Westside Canal Battery Storage Project (Project) and to propose mitigation measures where required, to reduce significant impacts.

Project Overview

Consolidated Edison Development (CED) Westside Canal Battery Storage, LLC (Applicant) is proposing to develop, design, construct, own, operate, and decommission the Westside Canal Battery Storage Project, a utility-scale energy storage complex with the capacity of up to 2,000 Megawatts (MW) at full build out. The Project Site is located in the unincorporated Mount Signal area of Imperial County, approximately eight miles southwest of the City of El Centro and approximately five miles north of the U.S.-Mexico border. The Project Site encompasses approximately 163 acres of land, 148 of which are owned by the Applicant, and the remaining land is owned by the BLM, Imperial Irrigation District (IID), and a private landowner. The application for the Project proposes a General Plan Amendment to change the land use designation of the Project Site from Agriculture to Industry, and Zone Change to change the zoning from Heavy Agriculture (A-3) to Medium Industrial (M-2) zoning. A Conditional Use Permit would be required and specifically limited to energy production/use.

The Project would store energy generated from the electrical grid, and optimally discharge that energy back into the grid upon demand. The Project would be constructed in multiple phases over a 10-year period with each phase ranging from approximately 25 MW to 400 MW. For the purposes of this analysis, Project construction is assumed to occur over three to five phases. Given the approximately 10-year development of the Project, the expected end date of the Project life cycle would be 30 years from the construction of the final phase, or no more than 40 years after the effective date of the Conditional Use Permit.

The Project would be comprised of Li-ion and/or flow battery energy storage system facilities, a behind-the-meter solar energy component, a new on-site 230-kilowatt (kW) loop-in switching station, a 34.5 kV to 230 kV Project substation, underground electrical cables, and permanent vehicular access to and from the Project Site over a proposed clear-span bridge spanning IID's Westside Main Canal. The proposed loop-in switching station would connect the Project to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line, which connects to the Imperial Valley (IV) Substation and the California Independent System Operator (CAISO), approximately one-third mile south of the Project Site. The Applicant has submitted the necessary Interconnection Request Applications to the CAISO and IID.

The Project complements both the existing operational renewable energy facilities, and those planned for future development in Imperial County (County) and supports the broader Southern California's bulk electrical transmission system by serving as a firm, dispatchable resource.

Purpose of a Draft Environmental Impact Report

The purpose of a Draft EIR is to analyze the potential environmental impacts associated with a project. CEQA Section 15002 states that the purpose is to: inform the public and governmental decision makers of the potential significant impacts of a project; identify the ways that environmental damage can be avoided or significantly reduced; prevent significant avoidable damage to the environment by requiring changes in

projects through the use of alternatives or mitigation measures when the government agency finds the changes to be feasible; and 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. Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) include a statement of objectives sought by the Project. These objectives identify the underlying purpose of the Project and provide a basis for identification of alternatives evaluated in the EIR. A clearly written statement of objectives allows the lead agency to develop a reasonable range of alternatives to evaluate in the EIR and aids the decision-makers in preparing findings or a statement of overriding considerations, if necessary.

This EIR evaluates the Project in Imperial County, California. Per CEQA, the Imperial County Planning & Development Services (ICPDS) is the Lead Agency. This Executive Summary (ES) is intended to provide an overview of the Project and its environmental effects.

Project Objectives

Pursuant to CEQA Section 15124(d), objectives have been identified for the Project. A primary objective is to develop a project that will produce public benefits for the County, the Southern California Region, and the State of California. The following is a list of key public benefits that are fundamental to the Project's objectives:

- To construct and operate utility-scale energy storage technologies that are safe, efficient, and environmentally responsible
- To provide load-serving entities and system operators the ability to effectively manage intermittent renewable generation on the grid, thereby creating reliable, dispatchable generation as a firm, dispatchable resource
- To facilitate deployment of additional renewable energy resources in furtherance of the State of California Renewable Portfolio Standard
- To develop an up to 2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production
- To promote local economic development by maximizing the utilization of the local workforce for a variety of trades and businesses

Required Approvals

Table ES-1, Agency Permits and Environmental Review Requirements, lists the anticipated permits potentially required for the Project.

Table ES- 1 Agency Permits and Environmental Review Requirements

Agency	Permits and Other Approvals
Imperial County	General Plan Amendment Zone Change Conditional Use Permit Development Agreement Grading Permit Conceptual Drainage Plan Domestic Wastewater/Septic System Permit

Agency	Permits and Other Approvals
	Fire Suppression Plan Transportation Permits Mechanical Permits Electrical Permits Structural/Foundation Permits Haul Route Plan Rule 310 Dust Control Plan & Rule 801 Compliance National Pollutant Discharge Elimination System (NPDES) Construction General Permit NPDES General Permit for MS4 Compliance AB 52 Consultation
Imperial Irrigation District	Generator Interconnection Agreement
California Independent System Operator	Generator Interconnection Agreement
United States Army Corps of Engineers	Clean Water Act Section 404
Regional Water Quality Control Board	Clean Water Act Section 401
California Department of Fish and Wildlife	California Fish and Game Code 1600
Imperial County Air Pollution Control District	Dust Control Plan

Environmental Impacts

Impacts Determined to Require No Further Consideration in This Environmental Impact Report

Based upon information contained in the Initial Study (IS) and Notice of Preparation (NOP), the Project was determined to have no impact or less than significant impacts associated with the topics below. Therefore, these topics were not addressed in this Draft EIR. However, the rationale for eliminating these topics is briefly discussed below.

Cultural Resources

To be considered historically significant, a resource must meet one of the four criteria for listing outlined in the California Register of Historical Resources (CRHR) (CEQA Guidelines 15064.5(a)(3)) and noted below:

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 in 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.

Literature review and cultural resources surveys of the Project study area did not identify any other historical sites within the Project study area and the Project would have no impact to the significance of a historical resource as identified in Section 15064.5. However, a section of the Westside Main Canal is eligible for listing on the National Register of Historic Places and CRHR on the local and state levels under Criterion A for its significance in association with development of the Imperial Valley. The Westside Main Canal would be impacted by the Project due to the construction of the clear-span bridge across the Westside Main Canal

to provide vehicular access from Liebert Road. The proposed bridge would not result in physical alteration of the Westside Main Canal itself. Because there are other visual impacts along the Westside Main Canal including other bridges and impacts from maintenance improvements such as dredging and concrete lining, the proposed bridge will not affect the qualities or values that qualify the resource for listing in the National Register of Historic Places or CRHR. The Westside Main Canal would still maintain its association with the development of agriculture in the Imperial Valley. The potential for intact subsurface prehistoric or historic historical sources to be present on the Project property is considered very low due to the extensive disturbance owed to agricultural activities. Although the potential for currently encountering subsurface human remains within the Project footprint is unlikely, there remains a possibility that human remains could be present beneath the ground surface, and that such remains could be exposed during Project construction. In the event that evidence of human remains is discovered, construction activities within 50 feet of the discovery shall be halted or diverted, and the County Coroner will be notified (Section 7050.5 of the Health and Safety Code). No subsurface disturbance will occur during Project operation. Decommissioning activities will involve the removal of some Project components. The ground disturbance that would occur as a result of decommissioning would be in the same locations of disturbance that occurred during the construction of the Project. Additional ground disturbances outside of those during construction are not anticipated. Therefore, no further disturbance of potential human remains is anticipated to occur.

Energy

The construction and operation of the Project would include the consumption of water, electricity, and fossil fuel resources. The energy required for the production of new materials would result in the irretrievable commitment of natural resources. The amount and rate of consumption of resources for the anticipated equipment and materials required for the construction of the Project would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. The Project would provide up to approximately 400 MW (per phase) of firm, dispatchable energy at times when demand is highest. This energy resource would be used to create other goods or more efficiently power regional services, thus ensuring that no wasteful or inefficient consumption of energy resources would occur and offset demand which would otherwise be met by less efficient methods of energy generation.

The Project would be compliant with all state and local plans for renewable energy or energy efficiency because it would develop a firm, dispatchable source of power helping to offset the use of nonrenewable resources and contribute to an overall reduction of nonrenewable resources currently used to generate electricity. The Project would increase the effectiveness of other regional renewable projects by increasing the region's energy storage capacity. Therefore, the Project would have no impact on a state or local energy plan.

Mineral Resources

The Project Site is currently zoned for agricultural use. The Site is not utilized for mineral resource production. According to the California Department of Conservation, there are no mapped mineral resource zones in or near the Project Site. Therefore, the Project would not result in a significant impact on the availability of a known mineral resource or mineral resource zone.

Noise

Noise associated with construction of the Project would potentially result in short-term impacts to the surrounding properties; however, there are no nearby residences which would be affected by the noise associated with either the construction or operation of the Project. The construction activities would only occur between Monday through Friday between the hours of 7:00 a.m. and 7:00 p.m., or Saturday between the hours of 9:00 a.m. and 5:00 p.m., which would be in compliant with the time-of-day restrictions and noise level limits set forth in the County's General Plan Noise Element. However, during hot weather, it may be necessary to commence work earlier than the designated times to avoid pouring concrete during high

ambient temperatures. If construction is to occur outside the County's specified working hours, coordination with the County would occur in advance of these activities. As modeled in the Noise Technical Report (Appendix M), the noise associated with the Project operation would attenuate to less than 60 dB(a) (A-weighted decibels) Leq(8h)[1] which would not exceed the 70 dB(a) property line noise level limit. Therefore, the Project would not result in a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project exceeding standards established in the local general plan, noise ordinance, or applicable standards.

The nearest sensitive receptor to the Project is a residence located 0.85 mile from the Project's property line. The main vibratory sources from the Project would be generated during the temporary and short-term construction activities. The General Plan or Noise Ordinance does not contain any specific performance standards or vibration, therefore, a vibration analysis exceeding 0.1 peak particle velocity (PPV) would be considered the threshold of concern. At this level, the vibration would be barely perceptible by humans, with a doubling of vibration level still required to potentially generate damage to structures. For demonstration, a typical piece of construction such as a large bulldozer produces 0.0048 PPV at 175 feet. As the nearest sensitive receptor is located 0.85 miles from the Project's property line, the PPV produced by a large bulldozer would be significantly less than the 0.1 PPV threshold of concern. Therefore, vibration generated by the Project would not result in a significant impact to nearby sensitive receptors.

The Project is not located within the bounds of any airport land use plan, as outlined in the County Airport Land Use Compatibility Plan. Therefore, the Project would not impact a private airstrip or airport land use plan.

Population and Housing

Due to the longevity of the construction activities, approximately 10 years, it is assumed that the construction workforce would likely be expected to be filled by the local workforce. During operations, workers would be present at the Project Site for maintenance activities. Typical maintenance would be expected to require up to 20 employees at full buildout. The maintenance staff would be expected to be filled by the local workforce that has readily available labor and would not induce unplanned population growth. Therefore, the Project would not have the potential to cause substantial direct or indirect population growth.

As the Project Site is currently zoned as Heavy Agriculture, the Project would not remove any available housing units or displace existing people or housing. Therefore, the Project would not impact population and housing.

Public Services

Increased demand in fire protection, emergency services, and police services are typically correlated with an increase in residential population. Approximately 20 full time employees would remain for Project O&M after Project buildout. This relatively small number of permanent employees would not result in a significant increase in the need for fire protection and emergency services. The Project includes an on-site fire protection system for all battery systems and additional security measures, such as an eight-foot tall barbed wired-topped fence, a camera equipped call button at the front gate, security cameras throughout the Project Site, and an on-site security guard during non-active construction hours. Therefore, the Project would not cause a substantial increase in the demand for police and fire protection services.

As the Project does not include a housing element, there would be no increase in residential population size. Therefore, the Project would not impact schools, parks, or other public facilities.

[1] An averaged 8-hr equivalent continuous A-weighted sound pressure level, measured in dB (A), referenced to 20 micro Pascals in air. LAeq,8h must be determined in accordance with AS/NZS 1269.

Recreation

The Project is limited to a battery energy storage facility and does not include a component that would result in population growth or increased demand for recreational facilities. Therefore, the Project would not impact parks or other recreational facilities.

Transportation

A Traffic Impact Analysis was prepared for the Project and is included as Appendix L in the EIR. The traffic analysis concluded, based on the significance criteria of the County and Caltrans, that roadway segments would operate as Level of Service B or better with the Project. The Project is anticipated to generate an increase in construction related traffic. Although an increase is expected, the Project-related traffic is still considered lower than the County's threshold of significance as operating at Level of Service B or better. As such, the Project would not result in a significant conflict with a program plan, ordinance, policy addressing the circulation systems, or with CEQA Guidelines Section 15064.3 subdivision (b).

According to the County of San Diego Transportation Study Guide, a detailed transportation Vehicle Miles Traveled (VMT) analysis is not required for projects that generate less than 110 daily vehicle trips. During operations, the Project would generate only 40 trips per day. VMT analyses are also not required to address construction traffic since these trips are temporary in nature. Therefore, the Traffic Impact Analysis concluded the Project is presumed to have a less than significant VMT impact due to Project-generated trips, and a detailed transportation VMT analysis was not warranted.

The Project is located in a rural portion of the County with low traffic volumes. The Project would not increase hazards due to a geometric design or an incompatible use with surrounding agricultural land.

The Project includes a clear-span bridge over the Westside Main Canal to provide access to the Project Site from the north. Additional access roads would be paved on the north and south sides of the Westside Main Canal providing access. Until the bridge construction is complete, temporary access is proposed from the south of the Project Site off State Route 98, or from the north of the Project Site at I-8 to Wixom Road. Temporary and permanent access ensures adequate access would consistently be provided. Therefore, the Project would result in less than significant impacts to inadequate emergency access.

Wildfires

The Project is not located in a State Responsibility Area, or near a State Responsibility Area, or on lands classified as a Very High Fire Hazard Severity Zone. Under these significance thresholds, the Project would not significantly impact an adopted emergency response or evacuation plans, exacerbate wildfire risks, or expose people or structures to significant risks as a result of runoff, instability, or drainage changes. Therefore, impacts to wildfire would be less than significant.

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

The analysis contained in the Draft EIR determined that the Project would result in either less-than-significant impacts or less-than-significant impacts after mitigation is implemented for the following resources:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Tribal Cultural Resources
- Utilities and Service Systems

These impacts are evaluated in detail in Chapter 3 of this Draft EIR and are summarized in Table ES-2 at the end of this Executive Summary.

Cumulative Impacts

The analysis contained in the Draft EIR determined that no cumulative impacts or less than significant cumulative impacts would result from Project implementation.

Significant Irreversible Environmental Changes

Implementation of the Project would commit nonrenewable (e.g., petroleum) or slowly renewable (e.g., timber) resources during Project construction and operation. In order to construct the Project, machinery, equipment, materials (e.g., lumber, sand, gravel) and workers would be required, representing an irreversible commitment of some of these resources. Similarly, during operation, some of these resources (e.g., energy, electricity) would again be needed, representing a long-term commitment and permanent investment. The consumption and use of some of these resources would limit their availability for future generations. In addition, construction of the Project would also irreversibly change existing views to the Site from adjacent areas. However, it should be noted that the on-site PV solar generation will serve as station auxiliary power and would assist in meeting a portion of the energy needs of the facility during each phase of development, and once fully operational, thereby reducing its consumption of fossil fuels or contribution to greenhouse gases (GHGs).

One of the objectives of the Project is to construct and operate a battery energy storage facility that is safe, efficient, and environmentally responsible. The Project would develop a facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid upon demand. As discussed above, resources that would be consumed as a result of Project implementation include water, electricity, and fossil fuels during construction and operations; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources over the long-term. Compliance with all applicable building codes, as well as County policies and the mitigation measures identified in this EIR, would help ensure that natural resources are conserved to the extent feasible.

Growth Inducement

The overall objective of the Project is to provide a utility-scale energy storage complex incorporating Li-ion battery systems and/or flow battery technologies. In addition, the Project is not intended to facilitate growth through the construction of infrastructure that would encourage urban uses (e.g., housing,

retail/commercial, roadways) but instead allows excess energy to be stored and later dispatched optimally back into the existing electrical grid as firm, reliable generation when needed. By constructing the facility, load-serving entities and system operators would be better able to manage and convert intermittent renewable generation into reliable, dispatchable generation upon demand. This would also help the state to meets its energy needs. Therefore, the Proposed Project is not considered growth inducing.

Areas of Controversy

Section 15123(b)(2) of the CEQA Guidelines requires that an EIR identify areas of controversy as well as issues to be resolved known to the Lead Agency, including issues raised by other agencies and the public. A primary issue associated with this energy storage project is the corresponding land use compatibility, as well as fiscal and economic impacts to the County.

Table ES- 2 Summaries of Impacts and Mitigation Measures

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics			
	Less than significant	No mitigation measures are warranted.	Not applicable
Agricultural and Forestry Resources			
Impact 3.2-a: Prime Farmland, Unique Farmland, or Farmland of Statewide Importance	Significant impact	**MM AG-1: Payment of Agricultural and Other Benefit Fees** One of the following options included below is to be implemented prior to the issuance of a grading permit or building permit for the Project: **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 Department of Conservation 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 shall 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 2012-005; 2) the Agricultural Benefit Fee must be held by the County in a restricted account to be used by the County only for such	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		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 specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy.	
Impact 3.2-b: Williamson Act contract	Potentially significant impact	**MM AG-1: Payment of Agricultural and Other Benefit Fees**	Less than significant
Impact 3.2-c: Conversion of Farmland to non-agriculture use	Potentially significant impact	**MM AG-1: Payment of Agricultural and Other Benefit Fees**	Less than significant
Air Quality			
Impact 3.3-b: Cumulative increase of criteria pollutants	Less than significant, and no mitigation required; however, per requirements of ICAPCD, the standard mitigation measures would be implemented during construction and operation of the Project.	**MM AIR-1: Regulation VIII (Fugitive Dust Control Measures)** All construction sites, regardless of size, must comply with the requirements contained within Regulation VIII. *Standard Mitigation Measures for Fugitive Dust (PM10) Control* a) 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. b) All on-site and off-site unpaved roads would 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. c) All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day would be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering. d) 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. e) All Track-Out or Carry-Out would 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. f) Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		transfer with application of sufficient amounts of water, chemical stabilizers or by sheltering or enclosing the operation and transfer line. g) 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 opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering. **MM AIR-2: Construction Equipment Control Measures** *Standard Mitigation Measures for Equipment Exhaust Emissions Control* a) Use of equipment with alternative fueled or catalyst-equipped diesel engine, including for all off-road and portable diesel-powered equipment. b) Minimize idling time either by shutting equipment off when not in use or limit the idling time to a maximum of 5 minutes. c) Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the number of equipment in use. d) Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set). *Required Mitigation Measures for Construction Equipment Mobilization* a) The 1.2-mile portion of the access road from the IV Substation to the project site shall be covered with construction mats. b) No more than eight pieces of construction equipment shall be delivered to the project site in one day. c) A speed limit of 15 mph on the access road shall be enforced. *Required Mitigation Measures for Construction Activities* a) The 1.2-mile portion of the southern access road from the IV Substation to the project site shall be covered with construction mats. b) A material delivery speed limit of 15 mph on the access road shall be enforced. c) For material deliveries from the south, one of the following dust suppressant measures would be required for the 4.4-mile service road: d) A water truck shall apply water every 3 hours, or as deliveries occur; or e) A chemical dust suppressant shall be applied. f) For the 0.3-mile portion of the northern access route that is unpaved (south of Wixom Road to	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		the worker parking area) one of the following dust suppressant measures would be required: • A water truck shall apply water every 3 hours, or as worker access occurs; or • A chemical dust suppressant shall be applied. • A water truck shall apply water to all active on-site grading areas every 3 hours. *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: a) 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. b) Implement activity management (e.g., rescheduling activities to reduce short-term impacts). **MM AIR-3: Operational Dust Control Plan** To help reduce fugitive dust emissions from on-site unpaved roads and accumulation of small dunes during operations, an Operational Dust Control Plan (ODCP) would be prepared. The ODCP would include strategies for how dust emissions would be controlled and maintained during Project operations. The ODCP would be submitted to the ICAPCD for approval prior to the issuance of a Certificate of Occupancy.	
Impact 3.3-c: Sensitive Receptors	Less than significant, and no mitigation required; however, per requirements of ICAPCD, the standard mitigation measures would be implemented during construction and operation of the Project.	**MM AIR-1: Regulation VIII (Fugitive Dust Control Measures.** **MM AIR-2: Construction Equipment Control Measures** **MM AIR-3: Operational Dust Control Plan**	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources			
Impact 3.3-a: Habitat modifications, candidate, sensitive, or special status species	Potentially significant impact	**MM BR-1: Compensation for Permanent and Temporary Impacts to Vegetative Communities** To compensate for permanent and temporary impacts to on-site vegetative communities, within the Project Site, habitat (which may include preservation areas within portions of the Project Site not impacted by construction or mitigation lands outside of the main Project Site) that contains the same quality of vegetative communities impacted by the Project and that is not already public land shall be preserved and managed in perpetuity at the following ratios – temporary impacts to native vegetation communities shall be mitigated at a 1:1 mitigation ratio (one acre preserved/restored for each acre impacted) and permanent impacts shall be mitigated at a ratio of 2:1. Impacts to CDFW listed sensitive or riparian communities shall be mitigated at a ratio of 3:1. Land acquired/dedicated for impacts to native vegetation communities must be with lands occupied by habitat of a similar type and quality. Prior to the disturbance of vegetation, the Applicant shall obtain County approval of preserved and/or mitigation lands as well as documentation of a recorded conservation easement. The compensation for the loss of habitats may be achieved either by a) on-site habitat creation or enhancement habitats with similar species composition to those present prior to construction, b) off-site creation or enhancement of, or c) participation in an established mitigation bank program. Prior to the removal of native vegetation, if on- or off-site mitigation is required, a Habitat Restoration Plan (HRP) shall be prepared that will guide all restoration and monitoring activities (refer to MM BR-2 for details on the plan requirements). **MM BR-2: Develop a Habitat Restoration Plan** The Applicant shall restore temporarily disturbed areas to pre-construction conditions or better prior to the issuance of a grading permit and removal of any vegetation and/or wetland habitat. To this end, the Applicant shall retain a County qualified biologist, knowledgeable in the area(s) of annual grassland and wetland habitat restoration, to prepare a Habitat Restoration Plan (HRP). The Applicant shall submit the HRP to the County for approval (in consultation with CDFW and USFWS). The biologist will also be responsible for monitoring the implementation of the plan as well as the progress on achieving the established success criteria. The HRP shall expressly identify the process by which all disturbed areas shall be restored to pre-construction conditions or better. The plan will address restoration and revegetation related to disturbance from construction. It will also address restoration and revegetation required after decommissioning of the Project should this be	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		required. The decommissioning plan shall include, at a minimum, the following items: a) Figures depicting areas proposed for temporary disturbance/mitigation lands – The HRP shall include detailed figures indicating the locations and vegetation types of areas proposed for temporary disturbance. These figures shall be updated, as necessary, to reflect current Site conditions should they change. b) Proposed species for restoration/revegetation – The species palate proposed for restoration/revegetation shall include a combination of native annual and perennial species known to currently occur on the Project site and in adjacent habitats. c) Seed source and collection guidelines – Seeds shall first be collected from the stock of native plants occurring on the proposed Project site, during the appropriate collection period (late spring through the summer, depending on the species) and prior to disturbance from construction activities. Additional seed may be collected from stock within a 25-mile radius will be collected to maintain local genetic integrity. If seed collection from these areas is not possible then a seed source must be obtained from a local seed supplier familiar with native species. Seed will be limited to the species and quantity specified in the seed mix palette prepared for the Project. All seed will originate from the Project region, within +/- 1000 feet elevation of the Project site. The seed supplier chosen will provide a list of three references with the bid proposal. The references will include year, contact names, and telephone numbers. Seeds will be tested for percent purity, percent germination, number of pure live seeds per pound, and weed seed content. Seed testing will be the responsibility of the seed supplier. d) Planting methodology – A description of the preferred methods proposed for container plant installation or seeding shall be provided (e.g., hydroseeding, drill seeding, broadcast seeding, etc.). Additionally, a discussion on timing of seeding, type of irrigation system proposed, potential need of irrigation, type and duration of irrigation, and erosion controls proposed for revegetation activities shall be included. e) Invasive, non-native vegetation Control – A comprehensive discussion on weed control for the Project site will be developed and included in the HRP. This will serve to prevent the type conversion of natural habitats to those dominated by invasive species known to occur in the area.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		f) Monitoring program – Areas subject to restoration/revegetation shall be monitored to assess conditions and to make recommendations for successful habitat establishment. Monitoring will be performed by a County qualified biologist(s), knowledge- able in the area of annual grassland habitat restoration. Monitoring should include, at a minimum, the following: 1. Qualitative Monitoring – Qualitative monitoring surveys will be performed monthly in all restored/revegetated areas for the first year following planting in any phase of the Project. Qualitative monitoring will be on a quarterly schedule thereafter, until final completion approval of each restoration/revegetation area. Qualitative surveys will assess native plant species performance, including growth and survival, germination success, reproduction, plant fitness and health as well as pest or invasive plant problems. A County qualified wildlife biologist will assist in monitoring surveys and will actively search for mammal and other wildlife use. Monitoring at this stage will indicate need for remediation or maintenance work well in advance of final success/failure determination. The monitoring reports will describe site progress and conditions and list all observations pertinent to eventual success, and make recommendations as appropriate reg. remedial work, maintenance, etc. 2. Quantitative Monitoring – Quantitative monitoring will occur annually for years one to five or until the success criteria are met. Within each revegetation area, as shown figures referenced above, the biologist will collect data in a series of 1 m2 quadrats to estimate cover and density of each plant species within the revegetated areas. Data will be used to measure native species growth performance, to estimate native and non-native species coverage, seed mix germination, native species recruitment and reproduction, and species diversity. Additionally, within wetland habitat restoration areas, the biologist shall conduct sampling events to document the presence of hydric soil characteristics/indicators (if present). Based on these results, the biologist will make recommendations for maintenance or remedial work on the site and for adjustments to the approved seed mix.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		a) Success criteria – Criteria for successful restoration/revegetation of disturbed areas shall be provided. b) Reporting – Reporting will include progress reports summarizing site status and recommended remedial measures that will be submitted by the biologist to the County quarterly, with the exception of the site visits immediately preceding the development of each annual status report (see below). Each progress report will list estimated species coverage and diversity, species health and overall vigor, the establishment of volunteer native species, topographical/soils conditions, problem weed species, the use of the site by wildlife species, significant drought stress, and any recommended remedial measures deemed necessary to ensure compliance with specified performance criteria. One annual site status report that summarizes site conditions will be forwarded by the biologist to the County, the USFWS and the CDFW at the end of each year following implementation of this plan until the established success criteria have been met. Each annual report will list species coverage and diversity measured during yearly quantitative surveys, compliance/non-compliance with required performance standards, species health and overall vigor, the establishment of volunteer native species, hydrological and topographical conditions, the use of the site by wildlife species, and the presence of invasive weed species. In the event of substantial non-compliance with the required performance criteria, the reports will include remedial measures deemed necessary to ensure future compliance with specified performance criteria. Each annual report will include, at the minimum: 1. The name, title, and company of all persons involved in restoration monitoring and report preparation 2. Maps or aerials showing restoration areas, transect locations, and photo documentation locations. 3. An explanation of the methods used to perform the work, including the number of acres treated for removal of non-native plants 4. An assessment of the treatment success. **MM BR-3: Implement a Worker Environmental Education Program** Prior to any Project activities on the Site (i.e., surveying, mobilization, fencing, grading, or construction), a Worker Environmental Education Program (WEEP) shall be prepared and implemented by a qualified biologist(s). The	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		WEEP shall be submitted to the County for review and approval prior to issuance of construction permits and implemented throughout the duration of the construction activities. The WEEP shall be put into action prior to the beginning of any Site related activities, including but not limited to those activities listed above, and implemented throughout the duration of Project construction. The WEEP, shall include, at a minimum, the following items: a) Training materials and briefings shall include, but not be limited to a discussion of the Federal and State Endangered Species Acts, BGEPA, and the MBTA; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and significant natural plant community habitats; hazardous substance spill prevention and containment measures; a contact person and phone number in the event of the discovery of dead or injured wildlife; and a review of mitigation requirements. b) A discussion of measures to be implemented for avoidance of the sensitive resources discussed above and the identification of an on-site contact in the event of the discovery of sensitive species on the Site. c) Protocols to be followed when roadkill is encountered in the work area or along access roads to minimize potential for additional mortality of scavengers, including listed species such as the California condor and the identification of an on-site representative to whom the roadkill will be reported. Roadkill shall be reported to the appropriate local animal control agency within 24 hours. d) Maps showing the known locations of special-status wildlife, populations of rare plants and sensitive vegetative communities, seasonal depressions and known waterbodies, wetland habitat, exclusion areas, and other construction limitations (e.g., limited operating periods, etc.). These features shall be included on the Project's plans and specifications drawings. e) Literature and photographs or illustrations of potentially occurring special-status plant and/or wildlife species will be provided to all Project contractors and heavy equipment operators. f) The Applicant shall provide to the County evidence that all on-site construction and security personnel have completed the WEEP prior to the start of Site mobilization. A special hardhat sticker or wallet size card shall be issued to all personnel completing the training, which shall be carried with the trained personnel at all times while on the Project Site. All new personnel shall receive this training and may work in the field for no more than five days	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		without participating in the WEEP. A log of all personnel who have completed the WEEP training shall be kept on Site. g) A weather protected bulletin board or binder shall be centrally placed or kept on-site (e.g., in the break room, construction foreman's vehicle, construction trailer, etc.) for the duration of the construction. This board or binder will provide key provisions of regulations or Project conditions as they relate to biological resources or as they apply to grading activities. This information shall be easily accessible for personnel in all active work areas. h) Develop a standalone version of the WEEP, that covers all previously discussed items above, and that can be used as a reference for maintenance personnel during Project operations. **MM BR-4: Implementation of Best Management Practices** BMPs will be implemented as standard operating procedures during all ground disturbance, construction, and operation related activities to avoid or minimize Project impacts on biological resources. These BMPs will include but are not limited to the following: a) Compliance with BMPs will be documented and provided to the County in a written report on an annual basis. The report shall include a summary of the construction activities completed, a review of the sensitive plants and wildlife encountered, a list of compliance actions and any remedial actions taken to correct the actions, and the status of ongoing mitigation efforts. b) Prior to ground disturbance of any kind the Project work areas shall be clearly delineated by stakes, flags, or other clearly identifiable system. c) Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas to the extent practicable. d) Speed limit signs, imposing a speed limit of 15 miles per hour, will be installed throughout the Project Site prior to initiation of Site disturbance and/or construction. To minimize disturbance of areas outside of the construction zone, all Project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas will be included in preconstruction surveys and to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts. Off-road traffic outside of designated Project areas will be prohibited. e) No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		constructed. Spill kits shall be maintained on-site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials. f) All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes, etc.) and other human-generated debris will be stored in animal proof containers and/or removed from the Site each day. No deliberate feeding of wildlife will be allowed. g) All pipes and culverts with a diameter of greater than 4 inches shall be capped or taped closed. Prior to capping or taping the pipe/culvert shall be inspected for the presence of wildlife. If encountered the wildlife shall be allowed to escape unimpeded. h) No firearms will be allowed on the Project Site, unless otherwise approved for security personnel. i) To prevent harassment or mortality of listed, special-status species and common wildlife, or destruction of their habitats no domesticated animals of any kind shall be permitted in any Project area. j) Use of chemicals, fuels, lubricants, or biocides will comply with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. EPA, California Department of Food and Agriculture, and other state and federal legislation, as well as additional Project-related restrictions deemed necessary by the USFWS and CDFW. Use of rodenticides is restricted. k) Any contractor or employee that inadvertently kills or injures a special-status animal, or finds one either dead, injured, or entrapped, will immediately report the incident to the on-site representative identified in the WEEP. The representative will contact the USFWS, CDFW, and County by telephone by the end of the day, or at the beginning of the next working day if the agency office is closed. In addition, formal notification shall be provided in writing within three working days of the incident or finding. Notification will include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured will be turned over immediately to CDFW for care, analysis, or disposition. l) During the Site disturbance and/or construction phase, grading and construction activities before dawn and after dusk, is prohibited.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		m) Avoidance and minimization of vegetation removal within active construction areas, including the flagging of sensitive vegetative communities or plants. n) Avoidance and minimization of construction activities resulting in impacts to wetlands, streambeds, and banks of any ephemeral drainage unless permitted to do so. o) All excavation, steep-walled holes, or trenches in excess of 6 inches in depth will be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to escape before construction activities are allowed to resume or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required). p) New light sources will be minimized, and lighting will be designed (e.g., using down- cast lights) to limit the lighted area to the minimum necessary. **MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring** Prior to ground disturbance or vegetation clearing within the Project Site, a qualified biologist shall conduct surveys for wildlife (no more than 72 hours prior to Site disturbing activities) where suitable habitat is present and directly impacted by construction activities. Wildlife found within the Project Site or in areas potentially affected by the Project will be relocated to the nearest suitable habitat that will not be affected by the Project prior to the start of construction. Special-status species found within a Project impact area shall be relocated by an authorized biologist to suitable habitat outside the impact area. **MM BR-6: Implement Biological Construction Monitoring** Prior to the commencement of ground disturbance or Site mobilization activities the Applicant shall retain a qualified biologist(s), for the duration of Project construction, with demonstrated expertise with listed and/or special-status plants, terrestrial mammals, and reptiles to monitor(s), on a daily basis, all construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within, habitat that supports populations of the listed or special-status species identified within the Project boundaries. Any listed or special-status plants shall be flagged for avoidance. Any special-status terrestrial species found within a Project impact area shall be relocated by the	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		authorized biologist and relocated to suitable habitat outside the impact area. If the installation of exclusion fencing is deemed necessary by the authorized biologist, the authorized biologist shall direct the installation of the fence. Clearance surveys for special-status species shall be conducted by the authorized biologist prior to the initiation of construction each day. If the biological monitor observes a dead or injured listed or special-status wildlife species on the construction Site during construction, a written report shall be sent to the County, CDFW and/or USFWS within five calendar days. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). The biological monitor shall, immediately upon finding the remains, coordinate with the on-site construction foreman to discuss the events that caused the mortality (if known), and implement measures to prevent future incidents. Details of these measures shall be included with the report. Species remains shall be collected and frozen as soon as possible, and CDFW and/or USFWS shall be contacted regarding ultimate disposal of the remains. **MM BR-7: Conduct Pre-construction Surveys for Nesting and Breeding Birds and Implementation of Avoidance Measures** Prior to any Site disturbance (i.e., mobilization, staging, grading or construction), the Applicant shall retain a qualified biologist(s) to conduct pre-construction surveys for nesting birds within the recognized breeding season (generally February 15 – September 15 but may start earlier for some raptor species) in all areas within 500 feet of Project components (staging areas, substation sites, battery facility structures including, solar arrays, and access road locations). The required survey dates may be modified based on local conditions, as determined by the qualified biologist(s), with the approval of the County, in consultation with the USFWS and/or CDFW. Measures intended to exclude nesting birds shall not be implemented without prior approval by the County in consultation with USFWS and/or CDFW and shall not exceed County noise standards. If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300-foot buffer around the nest for ground-based construction activities and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. The prescribed buffers may be adjusted to reflect existing conditions including ambient noise, topography, and disturbance with the approval of the County, CDFW and USFWS as appropriate. The biological monitor(s) shall conduct regular monitoring of the nest to determine success/failure and to help ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. The biological monitor(s) shall be responsible for documenting the	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		results of the surveys and ongoing monitoring and will provide a copy of the monitoring reports for impact areas to the respective agencies. If for any reason a bird nest must be removed during the nesting season, the Applicant shall provide written documentation providing concurrence from the USFWS and CDFW authorizing the nest relocation. Additionally, the Applicant shall provide a written report documenting the relocation efforts. The report shall include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and whether the birds were accepted by the adopted parent. Surveys shall be conducted to include all structural components, related structures, as well as all construction equipment. If birds are found to be nesting in facility structures, buffers as described above shall be implemented. If birds are found to be nesting in construction equipment, that equipment shall not be used until the young have fledged the nest or, if no young are present, until after the breeding season has passed. If trees are to be removed as part of Project-related construction activities, they will be done so outside of the nesting season to avoid additional impacts to nesting raptors. If removal during the nesting season cannot be avoided, the biological monitor must confirm that the nest is vacant prior to its removal. If nests are found within these structures and contain eggs or young, the biological monitor shall allow no activities within a 300-foot buffer for nesting birds and/or a 500-foot buffer for raptors until the young have fledged the nest. **MM BR-8: Implement Avian Power Line Interaction Committee guidelines** The Applicant will be required to construct all transmission facilities, towers, poles, and lines in accordance with and comply with all policies set forth in the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 and Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC), to minimize avian electrocutions as a result of the construction of the Project. Details of design components shall be indicated on all construction plans and measures to comply with Avian Power Line Interaction Committee (APLIC) policies and guidelines shall be detailed in a separate attachment, all of which will be submitted with the construction permit application. The Applicant shall be required to monitor for new versions of the APLIC guidelines and update designs or implement new measures as needed during Project construction, provided these actions do not require the purchase of previously ordered transmission line structures. A review of compliance with submitted materials will be conducted prior to the final County inspection.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		MM BR-9: Conduct Pre-construction Surveys for State and Federally Threatened, Endangered, Proposed, Petitioned, and Candidate Plants and Implementation of Avoidance Measures Prior to initial ground disturbance and for undisturbed areas in subsequent construction years, the Applicant shall conduct pre- construction surveys for State and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate plants in all areas subject to ground-disturbing activity, including, but not limited to, battery facility structures including, access roads, poles/towers, solar array footing preparation, construction areas, and assembly yards. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist according to protocols established by the USFWS, CDFW, and CNPS. All listed plant species found shall be marked and avoided. Any populations of special-status plants found during surveys will be fully described, mapped, and a CNPS Field Survey Form or written equivalent shall be prepared. These surveys must be accomplished during a year in which rainfall totals are at least 80 percent of average and in which the temporal distribution of rainfall is not highly abnormal (e.g., with most rainfall occurring very early or late in the season) to be reasonably certain of the presence/absence of rare plant species, unless surveys of reference populations document that precipitation conditions would not have adversely affected the ability to detect the species. This condition may be waived with the approval of the County after consultation with the CDFW and USFWS. If a listed plant species cannot be avoided, consultation with USFWS and CDFW will occur. Prior to Site grading or vegetation removal, any populations of listed plant species identified during the surveys within the Project limits and beyond, shall be protected and a buffer zone placed around each population. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by a qualified plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the USFWS, CDFW, and County. Where impacts to listed plants are determined to be unavoidable, the USFWS and/or CDFW shall be consulted for authorization. Additional mitigation measures to protect or restore listed plant species or their	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		habitat, including but not limited to a salvage plan including seed collection and replanting, may be required by the USFWS or CDFW before impacts are authorized, whichever is appropriate. **MM BR-10: Compensate for Impacts to State and Federally Threatened, Endangered, Proposed, Petitioned, and Candidate Plants** To compensate for permanent impacts to State and Federally Threatened, Endangered, Proposed, Petitioned and Candidate plants, habitat (which may include preservation areas within the undisturbed areas of the Project footprint, mitigation lands outside of the main Project Site or a combination of both) that is not already public land shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted). Prior to the disturbance of habitat for or take of listed plant species the Applicant will be required to obtain County approval of preserved and/or mitigation lands as well as provide documentation of a recorded conservation easement(s). Compensation for temporary impacts shall include land acquisition and/or preservation at a 0.5:1 ratio. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and will contain verified extant populations, of the same size or greater, of the State or Federally listed plants that are impacted. Habitat shall be preserved through the use of permanent open space easements. Mitigation lands cannot be located on land that is currently held publicly. Mitigation lands may include (depending on the habitat requirements of particular species): • Areas outside the Project boundary, but within the general Project region • Preservation areas within portions of the Project Site that are at least 100 feet from Project components and are either (1) not permanently impacted by construction and operation of the Project, or (2) temporarily disturbed and then restored according to the requirements in Mitigation Measure BR-2; and • Degraded areas (e.g., areas that have been actively dry-farmed) that are restored to high quality habitat through the implementation of a County-approved restoration plan. Criteria for appropriate mitigation land are species-specific; the following factors must be considered in assessing the quality of potential mitigation habitat: (1) Current land use; (2) Location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to Project facilities or other potential sources of disturbance); (3) Vegetation composition and structure; (4) Slope; (5) Soil composition and drainage; and (6) Level of occupancy or use by relevant species.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		The Applicant shall either provide open space easements or provide funds for the acquisition of such easements to a "qualified easement holder" (defined below). The CDFW is a qualified easement holder. To qualify as a "qualified easement holder" a private land trust must have the following: • Substantial experience managing open space easements that are created to meet mitigation requirements for impacts to sensitive species • Adopted the Land Trust Alliance's Standards and Practices • A stewardship endowment fund to pay for its perpetual stewardship obligations The County shall determine whether a proposed easement holder meets these requirements. The Applicant shall also be responsible for donating to the conservation easement holder fees sufficient to cover: (1) Administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, etc.) and (2) Funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the conservation easement holder in consultation with the County. Open space easement(s) shall also be subject to the following conditions: • The locations of acceptable easement(s) shall be developed with approval of CDFW and USFWS. • The primary purpose of the easement(s) shall be conservation of impacted species and habitats, but the conservation easement(s) shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species. Open space easement(s) shall: • Be held in perpetuity by a qualified easement holder (defined above). • Be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) Name CDFW or another organization to which the easement(s) will be conveyed if the original holder is dissolved. • Be subject to the management requirements outlined in Mitigation Measure BR-2. However, if lands acquired or protected for the compensation of permanent impacts to wildlife and/or vegetative communities (discussed above) contain similar sized populations of the impacted listed plant species, no further mitigation would be required.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		MM BR-11: Conduct Pre-construction Surveys for Special-Status Plants and Implement Avoidance Measures Prior to initial ground disturbance and for undisturbed areas in subsequent construction years, the Applicant shall conduct pre-construction surveys for special-status plant species in all areas subject to ground-disturbing activity, including, but not limited to, battery facility structures including, access roads, poles/towers, construction areas, and assembly yards. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist according to protocols established by the USFWS, CDFW, and CNPS. All listed plant species found shall be marked and avoided. Any populations of special-status plants found during surveys will be fully described, mapped, and a CNPS Field Survey Form or written equivalent shall be prepared. These surveys must be accomplished during a year in which rainfall totals are at least 80 percent of average and in which the temporal distribution of rainfall is not highly abnormal (e.g., with most of the rainfall occurring very early or late in the season) to be reasonably certain of the presence/absence of rare plant species, unless surveys of reference populations document that precipitation conditions would not have adversely affected the detectability of the species. Prior to Site grading, any populations of special-status plant species identified during the surveys shall be protected by a buffer zone. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by a qualified plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the USFWS, CDFW, and County. Highly visible flagging shall be placed along the buffer area and remain in good working order during the duration of any construction activities in the area. If Project related impacts result in the loss of more than 10 percent of the on-site population of any Special-Status plant species, compensatory mitigation will be required as described below. **MM BR-12: Compensate for Impacts to Special-Status Plant Species** If Project related impacts result in the loss of more than 10 percent of the on-site population of any Special-Status	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		plant species, compensatory mitigation will be required. Prior to the disturbance of habitat for or take of Special-Status plants/populations the Applicant must receive County approval of preserved and/or mitigation lands as well as present documentation of a recorded conservation easement(s). Compensation will be required for all impacts that exceed the 10 percent threshold (e.g., impacts to 15 percent of a population will only require compensation for 5 percent or the amount of impacts that exceed the 10 percent threshold). To compensate for permanent impacts to special-status plant species, habitat (which may include preservation of areas within the undisturbed areas of the Project footprint, mitigation lands outside of the main Project Site or a combination of both) that is not already public land shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted). Compensation for temporary impacts shall include land acquisition and/or preservation at a 0.5:1 ratio. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and will contain verified extant populations, of the same size or greater, of the special-status plants that are impacted. Impacts could include direct impacts resulting from loss of habitat or indirect impacts if a significant population or portion thereof is unable to be avoided. Habitat shall be preserved by using permanent open space easements. Mitigation lands cannot be located on land that is currently publicly held. Mitigation lands may include (depending on the habitat requirements of particular species) the following: • Areas outside the Project boundary, but within the County • Preservation areas within portions of the Project Site that are at least 100 feet from Project facilities and are either (1) not permanently impacted by construction and operation of the Project, or (2) are temporarily disturbed and then restored according to the requirements in Mitigation Measure BR-2 • Criteria for appropriate mitigation land are species-specific; however, the following factors must be considered in assessing the quality of potential mitigation habitat: (1) Current land use; (2) Location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to Project facilities or other potential sources of disturbance); (3) Vegetation composition and structure; (4) Slope; (5) Soil composition and drainage; and (6) Level of occupancy or use by relevant species The Applicant shall either provide open space easements or provide funds for the acquisition of open space easements to a “qualified easement holder” (defined	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		below). CDFW is a qualified easement holder. To qualify as a "qualified easement holder" a private land trust must have the following: • Substantial experience managing open space easements that are created to meet mitigation requirements for impacts to special status species • Adopted the Land Trust Alliance's Standards and Practices • A stewardship endowment fund to pay for its perpetual stewardship obligations The County shall determine whether a proposed easement holder meets these requirements. The County shall determine whether a proposed easement holder meets these requirements. The Applicant shall also be responsible for donating to the easement holder fees sufficient to cover: (1) Administrative costs incurred in the creation of the easement (appraisal, documenting baseline conditions, etc.) and (2) Funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the easement holder in consultation with the County. Open space easement(s) shall also be subject to the following conditions: • The locations of acceptable easement(s) shall be developed with approval of CDFW and USFWS • The primary purpose of the easement(s) shall be conservation of impacted species and habitats, but the easement(s) shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species Open space easement(s) shall: • Be held in perpetuity by a qualified easement holder (defined above) • Be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) Name CDFW or another organization to which the easement(s) will be conveyed if the original holder is dissolved • Be subject to the management requirements outlined in Mitigation Measure BR-2 If lands acquired or protected for the compensation of permanent impacts to wildlife and/or vegetative communities contain similar sized populations of the impacted special-status plant species, of equal or greater habitat value, these mitigation lands may be used to achieve the required compensation ratios for special-status plant species.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		MM BR-13: Complete Focused Pre-Construction Surveys for American Badger Surveys and Implementation of Avoidance Measures No more than 30 days prior to the commencement of construction activities, the Applicant shall retain a qualified biologist to conduct pre-construction surveys for American badger within suitable habitat on the Project Site. If present, occupied badger dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during pup-rearing season (15 February through 1 July) and a minimum 200-foot buffer established. The extent of buffers shall be flagged in the field utilizing a method highly visible by construction crews. Buffers may be modified with the concurrence of the CDFW. Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction to monitor for adequate protection of all identified dens and to help ensure that all flagging is kept in good working order. If avoidance of a non-maternity den (impacts to maternity dens is not allowed) is not feasible, badgers shall be relocated by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (15 February through 1 July). Any passive relocation of badgers shall occur only after consultation with the CDFW and the biological monitor. Prior to the final County inspection or occupancy, whichever comes first, a written report documenting all badger related activities (e.g., den flagging, monitoring, badger removal, etc.) shall be provided to the County. A copy of the report will also be provided to the CDFW. **MM BR-14: Pre-Construction Surveys and Avoidance/Relocation Measures for Flat-tailed Horned Lizard** Focused pre-construction surveys shall be conducted for flat-tailed horned lizard. During construction, areas of active surface disturbance shall be surveyed periodically, at least hourly, when surface temperatures exceed 29°C (85°F) for the presence of flat-tailed horned lizard. Flat-tailed horned lizards would be removed from harm's way during construction activities by the on-site biological monitor(s). To the extent feasible, methods to find flat-tailed horned lizards would be designed to achieve a maximal capture rate and would include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort would be 30 minutes per 0.40 hectare (one acre). Persons that handle flat-tailed horned lizards would first obtain all necessary permits and authorization from the CDFW. A Horned Lizard Observation Data Sheet and a Project Reporting Form, per Appendix 8 of the Rangewide Management Strategy, would also need to be completed. During construction, quarterly reports describing flat-tailed	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		horned lizards removal activity would be submitted to the USFWS, CDFW, and the County. The removal of flat-tailed horned lizard out of harm's way would include relocation to nearby suitable habitat in low-impact areas of the Yuba Management Area, which is located to the west and south of the Project Site. Relocated flat-tailed horned lizards would be placed in the shade of a large shrub in undisturbed habitat. If surface temperatures in the sun are less than 24°C (75°F) or exceed 38°C (100°F), a qualified biologist, if authorized, would hold the flat- tailed horned lizard for later release. Initially, captured flat-tailed horned lizards would be held in a cloth bag, cooler, or other appropriate clean, dry container from which the lizard cannot escape. Lizards would be held at temperatures between 75°F and 90°F and would not be exposed to direct sunlight. Release would occur as soon as possible after capture and during daylight hours. The qualified biologist would be allowed some judgment and discretion when relocating lizards to maximize survival of flat-tailed horned lizards found in the Project area. • To the maximum extent practicable, grading in flat-tailed horned lizard habitat would be conducted during the active season, which is defined as March 1 through September 30, or when ground temperatures are between 24°C (75°F) and 38°C (100°F). If grading cannot be conducted during this time, any flat-tailed horned lizards found would be removed to low-impact areas (see above) where suitable burrowing habitat exists, (e.g., sandy substrates and shrub cover). **MM BR-15: Compensation for Impacts to Flat-Tailed Horned Lizard** Pursuant to Title 43 CFR and the Federal Land Policy and Management Act of 1976, federal land management agencies may permit actions that result in flat-tailed horned lizard habitat loss on their lands; however, for losses both within and outside the Management Areas, compensation is charged if residual effects would occur after all reasonable on-site mitigation has been applied. The goal of compensation is to prevent the net loss of flat-tailed horned lizard habitat and make the net effect of a project neutral or positive to flat-tailed horned lizards by maintaining a habitat base for flat-tailed horned lizards. To achieve this goal, compensation will be based on the acreage of flat-tailed horned lizard habitat lost after all reasonable on-site mitigation has been applied at a 1:1 ratio for habitat lost outside a flat-tailed horned lizard Management Area. For this Project, compensation will be required for a loss of approximately 54 acres of flat-tailed horned lizard habitat.	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		MM BR-16: Develop a Habitat Mitigation and Monitoring Plan To help ensure the success of on-site preserved land and acquired mitigation lands, required for compensation of permanent impacts to vegetative communities and listed or special-status plants and wildlife, the Applicant shall retain a qualified biologist to prepare a Habitat Monitoring and Mitigation Plan (HMMP). The HMMP will be submitted to the County for approval, prior to the issuance of a construction permit. Prior to the final County inspection final impact acreages must be presented to the County and acquisition of off-site lands must be verified. The HMMP will include, at a minimum, the following information: a) Summary of anticipated habitat impacts and the proposed mitigation. b) Detailed description of the location and boundaries of undisturbed Project areas proposed for preservation, off-site mitigation lands and a description of existing site-wide conditions. The HMMP shall include detailed analysis showing that the mitigation lands meet the performance criteria outlined in MM BR-2 (Develop a Habitat Restoration Plan) and MM BR-15 (Compensate for Impacts to Flat-Tailed Horned Lizard). c) Discussion of measures to be undertaken to enhance (e.g., through focused management) the on-site preserved habitat and off-site mitigation lands for listed and special-status species. d) Description of management and maintenance measures (e.g., vegetation management, fencing maintenance, etc.). e) Discussion of habitat and species monitoring measures for on-site preservation areas and off-site mitigation lands, including specific, objectives, performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc. f) Development of a monitoring strategy for the monitoring of indirect impacts to vegetation and wildlife from alteration to the solar and hydric regimes as a result of Project facilities. g) Development of a monitoring strategy, which shall serve to document the persistence of flat-tailed horned lizard populations within the Project Site and on mitigation lands. This monitoring will be conducted for a minimum of 5 years after the completion of construction activities. The strategy should include, at the minimum, the following: h) Documentation of pre-Project population levels for the species noted above, based on results of	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		focused pre-construction surveys and previously supplied Applicant data. i) On-going monitoring of species populations upon completion of construction activities, while the Project is in operation, for a minimum of three years. j) Monitoring of reference populations for this species in areas that contain undisturbed habitat, such as the Yuba Management Area. k) An analysis of the comparison of percent changes in population levels at the Project and reference sites to be used in the determination of additional compensatory mitigation. l) The applicant shall prepare a contingency plan for mitigation elements that do not meet performance or final success criteria within 5 years. This plan will include specific triggers for remediation if performance criteria are not being met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) will occur. **MM BR-17: Burrowing Owl Protection Measures** The following measures shall be implemented during Project construction, operation, and decommissioning with respect to burrowing owls: • A qualified biologist(s) shall be on-site during all construction activities in suitable burrowing owl habitat. A qualified biologist (i.e., a biologist with previous burrowing owl survey experience) shall conduct pre-construction clearance surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows no more than 14 days prior to construction. The survey methodology shall be consistent with the methods outlined in the CDFG Staff Report (CDFG 2012). Copies of the survey results shall be submitted to CDFW and the County. • If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or facility construction, shall be permitted except in accordance with the staff report or by written authorization of CDFW staff. Burrowing owls shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the lead biologist and approved by the applicable local CDFW office and submitted to the County. The plan shall adhere to the requirements set forth in the Burrowing Owl Mitigation Staff Report (CDFW 2012). • In accordance with the Burrowing Owl Exclusion Plan, a qualified biologist shall excavate burrows	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		using hand tools. Sections of flexible plastic pipe or burlap bag shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation. • During construction activities, monthly and final compliance reports shall be provided to CDFW, the County, and other applicable resource agencies documenting the effectiveness of mitigation measures and the level of burrowing owl take associated with the Project. **MM BR-18: Compensation for Impacts to Burrowing Owl** Should burrowing owls be found on-site, compensatory mitigation for lost breeding or wintering habitat shall be implemented on-site or off-site in accordance with Burrowing Owl Mitigation Staff Report guidance and in consultation with CDFW. At a minimum, the following recommendations shall be implemented: • Temporarily disturbed habitat shall be restored, if feasible, to pre-Project conditions, including decompaction soil and revegetating. • Permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows, and burrowing owl impacted are replaced at a 1:1 ratio based on a site-specific analysis that shall include the following: • Permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and nonbreeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals. • Permanently protect mitigation lands through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. If the Project is located within the service area of a CDFW-approved burrowing owl conservation bank, the applicant may purchase available burrowing owl conservation bank. If the acquired lands or mitigation credits for other wildlife species or vegetation communities can be managed to support burrowing owl, the proposed mitigation lands	

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		could be aggregated so that the purchase of mitigation lands for one species could cover all or a portion of the mitigation requirements for the remaining species. Mitigation lands shall not already be public land.	
Impact 3.4-b: Riparian habitat or other sensitive natural community	Potentially significant impact	**MM BR-2: Develop a Habitat Restoration Plan** **MM BR-3: Implement a Worker Environmental Education Program** **MM BR-4: Implementation of Best Management Practices** **MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring** **MM BR-6: Implement Biological Construction Monitoring** **MM BR-16: Develop a Habitat Mitigation and Monitoring Plan**	Less than significant
Impact 3.4-c: State or federally protected wetlands	Potentially significant impact	**MM BR-2: Develop a Habitat Restoration Plan** **MM BR-3: Implement a Worker Environmental Education Program** **MM BR-4: Implementation of Best Management Practices** **MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring** **MM BR-6: Implement Biological Construction Monitoring** **MM BR-16: Develop a Habitat Mitigation and Monitoring Plan**	Less than significant
Geology and Soils			
Impact 3.5-a: Substantial soil erosion or loss of topsoil	Potentially significant impact	**MM HYD-1: Prepare Stormwater Pollution Prevention Plan and Implement Best Management Practices** Prior to issuance of any grading permit, the Project applicant or its contractor shall prepare a Project-specific SWPPP and be responsible for securing coverage under SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during both the construction and decommissioning of the Project. Example BMPs may include but not limited to the following practices: • Designation of restricted-entry zones, • Sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance), • Truck washdown areas, • Diversion of runoff away from disturbed areas, • Protective measures for sensitive areas, outlet protection,	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		• Provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area, • Treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds.	
Impact 3.5-e: Destroy unique paleontological resource or site or unique geological feature	Potentially significant impact	**GEO-1: Inadvertent Discovery** In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the Project Site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may exist within the Site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.	Less than significant
Greenhouse Gases			
	Less than significant	No mitigation measures are warranted.	Not applicable
Hazards and Hazardous Materials			
Impact 3.7-a: Routine transport, use, or disposal of hazardous materials	Potentially significant impact	**MM AIR-1: Regulation VIII (Fugitive Dust Control Measures)** **MM HYD-1: Prepare Stormwater Pollution Prevent Plan and Implement Best Management Practices**	Less than significant
Hydrology and Water Quality			
Impact 3.8-a: Violate water quality standards	Potentially significant impact	**MM HYD-1: Prepare Stormwater Pollution Prevent Plan and Implement Best Management Practices** Prior to issuance of any grading permit, the Applicant or its contractor shall prepare a Project-specific SWPPP and be responsible for securing coverage under SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during both the construction and decommissioning of the Project. Example BMPs may include but are not limited to the following practices: • Designation of restricted-entry zones	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		• Sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance) • Truck washdown areas • Diversion of runoff away from disturbed areas • Protective measures for sensitive areas, outlet protection • Provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area • Treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds **MM HYD-2: Final Project Drainage Plan** Prior to issuance of any grading permit, the applicant shall submit a Final Project Drainage Plan. The 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 discharge of stormwater to the proposed retention basins. Retention basins shall 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 the Project's impervious surfaces, as necessary.	
Impact 3.8-b: Erosion or siltation, flooding, or runoff on-site or off-site	Potentially significant impact	**MM HYD-1: Prepare Stormwater Pollution Prevention Plan and Implement Best Management Practices** **MM HYD-2: Final Project Drainage Plan**	Less than significant
Land Use and Planning			
	Less than significant	No mitigation measures are warranted.	Not applicable
Tribal Cultural Resources			
Impact 3.10-a: Cause a substantial change in the significance of a tribal cultural resource	Potentially significant impact	**MM CULT–1: Workers Environmental Awareness Program** A qualified archaeologist shall be retained to prepare a cultural resource focused Workers Environmental Awareness Program (WEAP) training that shall be given to all ground disturbing construction personnel to minimize harm to undiscovered archaeological resources or potential tribal resources that may be discovered during construction. All Site workers shall be required to complete WEAP Training with a focus on cultural resources, including education on the consequences of unauthorized collection of artifacts and that reviews discovery protocol. WEAP training shall also explain the protocol for notification, and requirements to retain a qualified archaeologist to evaluate any unexpected finds,	Less than significant

Environmental Impact	Significance Before Mitigation	Mitigation Measures	Significance after Mitigation
		as well as protocols regarding notification of tribal representatives. **MM CULT-2: Continued Consultation with the San Pasqual Band of Mission Indians** If no other responses to Imperial County's invitation to consult on the Project are received, prior to construction, the County shall continue consultation with the San Pasqual Band of Mission Indians (San Pasqual). If the County, as the lead agency, determines through continued consultation that there is substantial evidence the Project may adversely impact a yet unidentified Tribal Cultural Resource that meets criteria established in Public Resources Code Section 5024.1, the County shall determine if measures are needed to minimize potential impacts to TCRs including: • Requirements for Native American Monitoring of Project Ground Disturbing Activities • Development of an Unexpected Discovery Plan for Archaeological Resources • Development of a Treatment Plan for Artifacts Considered to be Tribal Cultural Resources If the County, through continued consultation efforts, determines there is not substantial evidence to support the existence of potential TCRs at the Project site, no additional measures shall be required.	
Utilities and Service Systems			
Impact 3.11-a: Relocation or construction of new facilities	Potentially significant impact	**MM HYD-1: Prepare Stormwater Pollution Prevention Plan and Implement Best Management Practices** **MM HYD-2: Final Project Drainage Plan**	Less than significant

Notes:
APLIC = Avian Power Line Interaction Committee
BGEPA = Bald and Golden Eagle Protection Act
BMP = Best Management Practices
CDFW = California Department of Fish and Wildlife
CFR = Code of Federal Regulations
CNPS = California Native Plant Society
ESA = Endangered Species Act
HMMP = Habitat Mitigation and Monitoring Plan
HRP = Habitat Restoration Plan
ICAPCD = Imperial County Air Pollution Control District
MBTA = Migratory Bird Treaty Act
NPDES = National Pollution Discharge Elimination Permit
ODCP = Occupational Dust Control Plan
PM = particulate matter
PM10 = particulate matter of 10 microns or less
SWPPP = Stormwater Pollution Prevention Plan
USFWS = U.S. Fish and Wildlife Service
WEAP = Workers Environmental Awareness Program
WEEP = Worker Environmental Education Program

Acronyms and Abbreviations

˚F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
2017 Scoping Plan	2017 Climate Change Scoping Plan
A3 or A-3	Agricultural Zone
AAQS	ambient air quality standards
AB	Assembly Bill
AC	Alternating Current
AF	acre-feet
AFY	acre-feet per year
ALOHA	Areal Locations of Hazardous Atmospheres
ALUC	Airport Land Use Commission
APMP	Advanced Protection Management Program
APLIC	Avian Power Line Interaction Committee
APN	Assessor Parcel Number
Applicant	Consolidated Edison Development, Inc.
AQMPs	air quality management plans
ASTM	American Society for Testing and Materials
ATCM	airborne toxic control measure
BAU	"business as usual"
BESS	Battery Energy Storage System
BGEPA	Bald and Golden Eagle Protection Act
bgs	below ground level
BLM	Bureau of Land Management
BMP	Best Management Practices
BMS	Battery Management System
BOUW	burrowing owl
BP	Before Present
BTM	behind-the-meter
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAC	County Agricultural Commissioner
CAD	Computer-Aided Design
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards
Cal/OSHA	California Occupational Safety and Health Administration

Caltrans	California Department of Transportation
Canal	Westside Main Canal
CARB	California Air Resources Board
CBC	California Building Code
CBP	Customs and Border Protection
CCA	community choice aggregators
CCAA	California Clean Air Act
CCR	California Code of Regulations
CD	compact disc
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CdTe	cadmium telluride
CEC	California Energy Commission
CED	Consolidated Edison Development, Inc.
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CGPM	coarse-grained porphyritic metavolcanic
CGS	California Geologic Survey
CH_4	methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
County	County of Imperial
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agencies
CVSR	California Valley Solar Ranch
CWA	Clean Water Act
D.	Decision
DC	Direct Current
DCH	Designated Critical Habitat
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DEIR	Draft Environmental Impact Report
DOA	Department of the Army

DOC	Department of Conservation
DOT	Department of Transportation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EI	Expansion Index
EIA	Economic Impact Analysis
EIR	Environmental Impact Report
EMF	electromagnetic fields
EMFAC2014	EMission FACtor Model 2014
EO	Executive Order
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
ES	Executive Summary
ESA	Environmental Site Assessment
ESP	electric service providers
ESS	energy storage system
FAR	fire-effected rock
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FFMP	Farmland Mapping and Monitoring Program
FGC	Fish and Game Code
FGM	fine-grained metavolcanic
FGPM	fine-grained porphyritic metavolcanic
FIA	Fiscal Impact Analysis
FR	Federal Register
General Plan	Imperial County General Plan
GHG	greenhouse gas
GPA	General Plan Amendment
gpd	gallons per day
gpm	gallons per minute
GW	gigawatt
GWP	global warming potential
H_2S	hydrogen sulfide
HDD	horizontal directional drilling
HFCs	hydrofluorocarbons
HMMP	Habitat Mitigation and Monitoring Plan
HRP	Habitat Restoration Plan
HVAC	Heating, Ventilation, and Air Conditioning
HWCL	Hazardous Waste Control Law
I-8	Interstate 8
IBC	International Building Code
ICAPCD	Imperial County Air Pollution Control District

ICC	Interagency Coordinating Committee
ICDPW	Imperial County Department of Public Works
ICFD	Imperial County Fire Department
ICPDS	Imperial County Planning & Development Services
ICS	Incident Command System
IID	Imperial Irrigation District
IOU	investor-owned utilities
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
IRWMP	Integrated Regional Water Management Plan
IS	Initial Study
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
IV Substation	Imperial Valley Substation
IVTA	Imperial Valley Telecommunications Authority
IWSP	Interim Water Supply Policy
JIA	Employment/Jobs Impact Analysis
KOP	Key Observation Point
kV	kilovolt
kW	kilowat
LAMP	Local Agency Management Program
LCFS	low carbon fuel standard
LESA	Land Evaluation and Site Assessment
Li-ion	lithium-ion
LOS	Level of Service
LSAA	Lake or Streambed Alternation Agreement
LSEs	Load Serving Entities
M-2	Medium Industrial
MBTA	Migratory Bird Treaty Act
mm	millimeter
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
$MMTCO_2e$	million metric tons of cardon dioxide equivalents
mpg	miles per gallon
mph	miles per hour removed this from 3.1 chapter. May be elsewhere?
MPO	Metropolitan Planning Organization
MSDS	Material Safety Data Sheet
MSL	mean sea level 3.1.2.3
MT	metric tons
$MTCO_2e$	metric tons of carbon dioxide equivalents
MW	Megawatts
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Completion
NOD	Notice of Detemination
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollution Discharge Elimination Permit
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Services
NRHP	National Register of Historic Places
NSF	National Science Foundation
NTR	National Toxics Rule
O&M	Operations and Maintenance
O_3	ozone
ODCP	Operational Dust Control Plan
OES	Office of Emergency Services
OHWM	ordinary high-water mark
OPR	Office of Planning and Research
OSHA	Occupation Safety and Health Act
OWTS	on-site wastewater treatment system
PCB	polychlorinated biphenyl
Pb	lead
PFCs	perfluorocarbons
PGI	Preliminary Geotechnical Investigation
PHD	Public Health Department
PLP	Polarized Light Pollution
PM	Particulate Matter
POU	public-owned utilities
ppm	parts per million
PPV	peak particle velocity
PV	photovoltaic
PRC	Public Resources Code
Project	Westside Canal Battery Storage Project
PSD	Prevention of Significant Deterioration
PV	Photovoltaic

Qa-Qc	Quaternary-aged alluvial deposits and Cahuilla Beds
RCRA	Resource Conservation and Recovery Act
RECON	RECON Environmental, Inc.
RHA	Rivers and Harbors Act
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Government
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SCS	"Sustainable Communities Strategy"
SDS	Safety Data Sheet
SEMS	Standardized Emergency Management System
SF_6	Sulfur hexafluoride
SHMA	Seismic Hazards Mapping Act
SIP	State Implementation Plan
S-Line	S-Transmission line
SO_2	sulfur dioxide
SO_X	sulfur oxides
SPCC	Spill Containment, Countermeasure, and Control
SR	State Route
SSA	Streambed Alternation Agreement
SSAB	Salton Sea Air Basin
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCMs	transportation control measures
TCR	tribal cultural resources
TMDL	total maximum daily load
TUA	Traditional Use Area
U.S.	United States
U.S.C.	United States Code
UL	Underwriters Laboratory
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United Stated Geological Survey
V	volt
VHFHSZ	Very High Fire Hazard Severity Zone
VOCs	volatile organic compounds
VRP	visibility reducing particles

WEAP	Workers Environmental Awareness Program
WEEP	Worker Environmental Education Program
WOTS	waters of the State
WOTUS	waters of the United States
WQS	water quality standards
WSA	Water Supply Assessment

1.0 INTRODUCTION

1.1 PURPOSE OF THE DOCUMENT

The purpose of this Draft Environmental Impact Report (EIR or Draft EIR) is to inform decision-makers and the public of the potential environmental impacts that could result from the Westside Canal Battery Storage Project (Project). An EIR is the most comprehensive form of environmental documentation under California Environmental Quality Act (Public Resources Code [PRC] Section 21000 et seq.) (CEQA) and the CEQA Guidelines.[1] It provides the information needed to assess the environmental consequences of a proposed project to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is one of the various decision-making tools used by a lead agency to consider the merits of a project that is subject to its discretionary authority.

CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the Westside Canal Battery Storage Project, the Imperial County (County) has determined that the proposed development is a "project" within the definition of CEQA.

The Project applicant is Consolidated Edison Development, Inc. (CED or Applicant). The lead agency, as defined by CEQA, is Imperial County; and the County is responsible for reviewing and approving the required environmental and planning permits.

As described in Sections 15121(a) and 15362 of the CEQA Guidelines, an EIR is an informational document that informs public agency decision-makers and the public of the significant environmental effects of a project, identifies possible ways to minimize the significant effects, and describes reasonable alternatives to the project. The purpose of this EIR, therefore, is to focus the discussion on the Project's potential effects on the environment that the lead agency has determined may be significant. In addition, feasible mitigation measures are recommended, when applicable, to reduce or avoid significant environmental impacts.

The EIR is prepared by and under the direction of the Imperial County Planning & Development Services (ICPDS), which also has primary responsibility for recommending approval and implementation of the Project. Project approval and certification of the EIR must be considered by the County Planning Commission and County Board of Supervisors.

The EIR process is explained in detail below in Section 1.4 (Review and Certification Process).

1.2 PROJECT OVERVIEW

The Applicant is proposing to construct, operate, and eventually decommission a battery energy storage facility on approximately 163 acres. The Project would be located in the unincorporated Mount Signal area of the County, approximately 8 miles southwest of the City of El Centro and approximately 5 miles north of the U.S.-Mexico border (Figure 1.2-1). The Project Site comprises two parcels, Assessor Parcel Number (APN) 051-350-010 and APN 051-350-011, totaling approximately 148 acres (Project Site). The Project will utilize portions of two additional parcels located north of the Westside Main Canal (APN 051-350-019 owned

[1] All references to "CEQA Guidelines" herein shall mean Title 14, California Code of Regulations Section 15000 et seq.)

by Imperial Irrigation District [IID] and APN 051-350-018 owned by a private landowner) for Site access and as a temporary construction staging area. The Project will also access a small portion of APN 051-350-009 that is within the IID easement for connection to the existing IID Campo Verde-Imperial Valley 230 kilovolt (kV) radial gen-tie line during the construction of a substation on the Project Site. The total proposed Project development footprint, encompassing both temporary and permanent impacts, would be approximately 163 acres. The Applicant is proposing to develop, design, construct, own, operate, and maintain the Westside Canal Battery Storage Project, a utility-scale energy storage complex with the capacity of up to 2,000 Megawatts (MW) at full build-out. The Project would be constructed in multiple phases over a 10-year development period, with each phase ranging from approximately 25 MW to 400 MW. For the purposes of this analysis, Project construction is assumed to occur over three to five phases. Given the approximately 10-year development of the Project, the expected end date of the Project life cycle would be 30 years from the construction of the final phase, or no more than 40 years after the effective date of the Conditional Use Permit. The Project would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services. Figure 1.2-2 illustrates the Project Site. A detailed description of the Project is provided in Chapter 2 of this EIR.

1.3 UNDERLYING PURPOSE AND STATEMENT OF OBJECTIVES OF THE PROPOSED PROJECT

1.3.1 Underlying Purpose

Development of the Project will provide a utility-scale energy storage complex incorporating lithium-ion (Li-ion) battery systems and/or flow battery technologies throughout the Site. The Project will allow excess, intermittent renewable energy to be stored and later dispatched optimally back into the existing electrical grid as firm, reliable generation when needed. The Project would complement currently operating clean energy solar and wind projects, as well as those planned for development in the County, and would support the broader Southern California bulk electric system by serving as a transmission asset.

1.3.2 Project Objectives

The Project is pursuing the following objectives:

- To construct and operate utility-scale energy storage technologies that are safe, efficient, and environmentally responsible
- To provide load-serving entities and system operators the ability to effectively manage intermittent renewable generation on the grid, thereby creating reliable, dispatchable generation as a firm, dispatchable resource
- To facilitate deployment of additional renewable energy resources in furtherance of the State of California Renewable Portfolio Standard
- To develop an up-to-2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production
- To promote local economic development by maximizing the utilization of the local workforce for a variety of trades and businesses

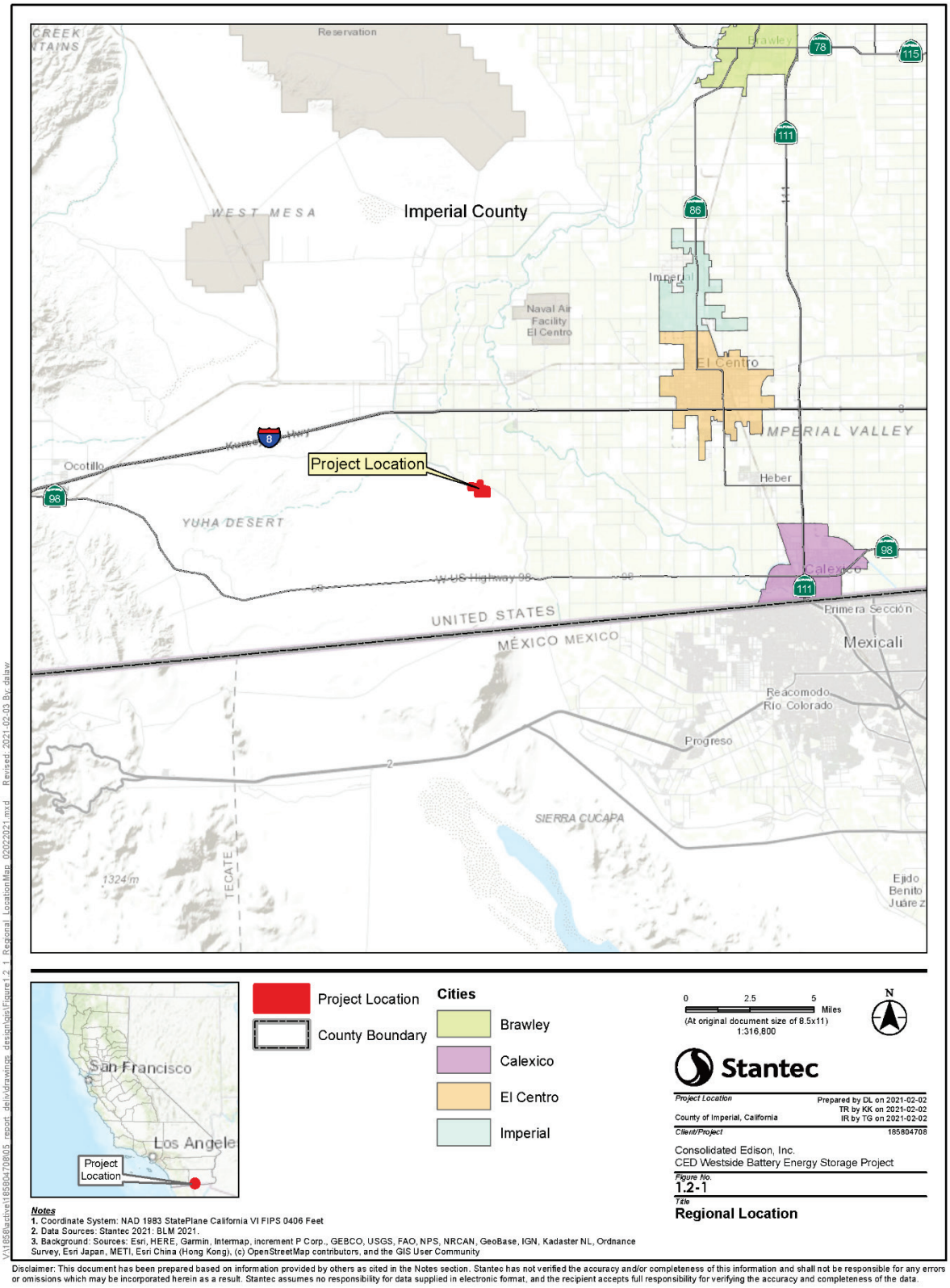


Figure 1.2-1 Regional Location

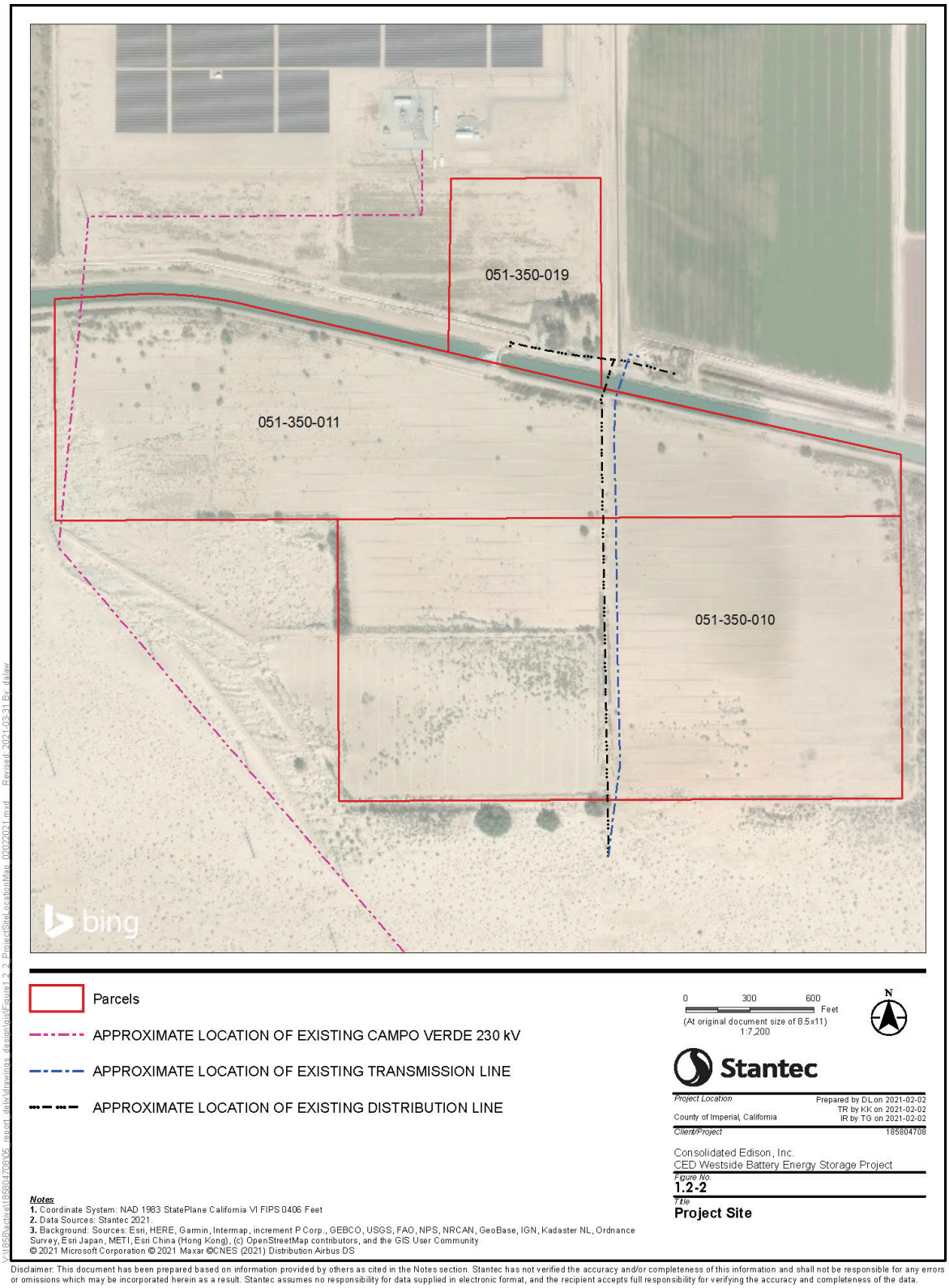


Figure 1.2-2 Project Site

1.4 REVIEW AND CERTIFICATION PROCESS

The following is an overview of the environmental review and certification process for the Project:

1.4.1 Notice of Preparation

The CEQA process is initiated when the lead agency identifies a proposed project. The lead agency then prepares an Initial Study (IS) to identify the preliminary environmental impacts of a project. An IS for the Project was prepared and determined that its implementation could have significant environmental impacts and an EIR is required. The County issued a Notice of Preparation (NOP)[2] for the preparation of an EIR (State Clearinghouse No. 2020040122) for the Westside Canal Battery Storage Project on April 13, 2020. Circulation of the NOP ended on May 18, 2020. The Project NOP and IS are attached hereto as Appendix A. During the public review period, the County, as lead agency, requested comments from agencies, interested parties, stakeholders, and the public on the scope and content of the environmental information to be included in the Draft EIR. Section 1.7 contains an overview of the comments received on the NOP.

1.4.2 Draft Environmental Impact Report

After the close of the 35-day NOP (30-day minimum per CEQA plus 5 days per Imperial County Guidelines) review and comment period, the lead agency continued the preparation of the Draft EIR and associated technical studies (if any). This Draft EIR includes a detailed description of the Project, environmental setting, identification of Project impacts and mitigation measures for impacts found to be significant. An analysis of Project alternatives as well as a discussion of cumulative impacts and other CEQA-required considerations are also provided. Upon completion of the Draft EIR, a Notice of Completion (NOC) will be filed with the California State Office of Planning and Research (OPR) by Imperial County. The NOC signals the start of the public review period for the Draft EIR (CEQA Guidelines Section 15085).

1.4.3 Public Notice/Public Review

The Draft EIR public review and comment period should be no less than 30 days and no longer than 60 days. In the case of the Project, the review period will be 50 days (45-day minimum per CEQA, plus 5 days per Imperial County Guidelines to distribute the EIR).

The NOC for the Project was filed on April 7, 2021 at the State Clearinghouse which started the 50-day review period. Concurrent with the NOC, a Notice of Availability (NOA) is prepared to inform agencies and the public of the document and the locations where the document can be reviewed. The NOA is sent to public agencies and interested parties and published within a general circulation newspaper for the area. The NOA was published on April 7, 2021 in the *Imperial Valley Press* newspaper. In addition, the NOA was posted on the County's website and at local libraries. Public comment on the Draft EIR will be accepted in written form. Details on where to send questions or comments are provided in subsection 1.7, below. The public review and comment period closes on May 31, 2021.

1.4.4 Response to Comments/Final EIR

After the close of the 50-day review and comment period, a Final EIR would be prepared. The Final EIR includes written responses to all comments received during the public review and comment period, and revision(s) to the Draft EIR. In addition, the Lead Agency must prepare a Findings of Fact for each significant effect identified; a Statement of Overriding Considerations if there are significant impacts that cannot be

[2] An NOP is prepared to notify public agencies and the general public that the lead agency is starting the preparation of an EIR for the project.

mitigated; and a Mitigation Monitoring and Reporting Program (MMRP) to help ensure that all proposed mitigation measures are implemented.

1.4.5 Certification of the EIR

The Final EIR would be considered by the County's Planning Commission and the County Board of Supervisors when taking action on the Project. If the Project is approved, CEQA requires the County to adopt findings describing how each of the significant impacts identified in the EIR is being mitigated. The findings are required to describe the reasons why significant unavoidable impacts, if any, cannot be mitigated. In this case, all significant effects of the Project would be mitigated to less-than-significant levels by the adoption of feasible mitigation measures. The findings will also describe the Project alternatives analyzed in the EIR and explain whether any alternative or portion of an alternative has been adopted. The County Board of Supervisors may certify and approve the final EIR or may choose to not approve the Project.

Subsequent to certification of the final EIR by the County Board of Supervisors, the Notice of Determination (NOD) is filed with the County Clerk's Office and State Clearinghouse within 5 days after certification. This begins a 30-day statute of limitations on legal challenges to the CEQA approval by the lead agency. The ability to challenge the approval in court may be limited to those persons who objected to the approval of the Project and issues that were presented to the lead agency by any person in writing during the public review and comment periods regarding the EIR.

1.4.6 Mitigation Monitoring and Reporting Program

Section 21081.6 of the PRC and Sections 15091(d) and 15097 of the CEQA Guidelines require public agencies "to adopt a reporting or monitoring program for changes to the project, which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." An MMRP is intended to confirm that adopted mitigation measures are successfully implemented, and a monitoring strategy has been prepared for each mitigation measure identified in the EIR. All measures are intended to offset, to the degree possible, potential significant adverse effects under CEQA.

A summary table would be prepared as part of the final EIR to assist the responsible parties in implementing the MMRP. The table will summarize the potential environmental impacts for each resource category for which mitigation measures are proposed in the EIR, identify individual mitigation measures, describe the methods for implementation and verification of each measure, and identify the responsible party or parties. Impacts for which mitigation measures are proposed will be listed under the various resource categories in the EIR. The order in which mitigation measures are presented (by resource category) will follow the sequence established in the EIR.

The MMRP will be considered for adoption by the County Board of Supervisors when it considers approving the Project. If adopted, the ICPDS will incorporate the MMRP requirements into the appropriate permits and Project specifications (e.g., engineering specifications, engineering construction permits). The MMRP will be kept on file at the ICPDS, 801 Main Street, El Centro, CA 92243.

The MMRP will be prepared to confirm that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner throughout implementation of the Project. The MMRP may be modified by the ICPDS in response to changing conditions or circumstances.

1.5 AGENCIES' ROLES AND RESPONSIBILITIES

1.5.1 Imperial County

As noted above in Section 1.1, Imperial County is designated as the CEQA lead agency for the Project. The land use designation for the Project Site is Agriculture according to the Imperial County General plan (General Plan). The zoning designation of the Project is Heavy Agricultural (A-3). The application for the Project requests approval of a General Plan Amendment, a Zone Change, and a Conditional Use Permit (CUP).

The Imperial County Code of Ordinances Title 9, Division 5 (Zoning Areas Established), identifies permitted uses within various zones as well as uses requiring a CUP. Imperial County Code Section 90508.0 addresses uses in the Heavy Agriculture zone. Per Section 90508.02, the following uses are permitted subject to approval of a CUP from the County: solar energy electrical generator, electrical power generating plant, major facilities relating to the generation and transmission of electrical energy, and resource extraction and energy development. Unlike a solar project, a battery energy storage project is not allowed in a Heavy Agriculture zone. Therefore, a zone change is proposed to allow Project development pursuant to approval of a CUP.

1.5.2 Other Agency Reviews and/or Consultants

1.5.2.1 Federal

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) possesses jurisdiction over waters of the United States and jurisdictional wetlands pursuant to the federal Clean Water Act (CWA). The USACE regulates the discharge of dredge/fill material into such waters, including ditches and drains that could be jurisdictional. A Jurisdictional Delineation Report following the guidelines set forth by USACE was conducted for the Project Site on February 5, 2019 (included in Appendix E.4 of this EIR). The Project has the potential to impact jurisdictional waters; and therefore, a Section 404 Permit may be required from USACE.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) is responsible for oversight of the Federal Endangered Species Act (FESA) and the Migratory Bird Treaty Act (MBTA). Biological surveys of the area were conducted to determine if critical habitat and federally listed species are present or are expected to occur in the Project area (included in Appendix E.1 of this EIR). A Biological Report was prepared by the RECON on January 18, 2021, and the report found that the Project would not result in cumulative impacts to sensitive resources, and all potential impacts would be mitigated to a less-than-significant level. Mitigation and monitoring recommendations are included in the report which could be reviewed in Appendix E.1 of this EIR.

1.5.2.2 State

California Department of Transportation

The California Department of Transportation (Caltrans) manages and oversees the road rights-of-way owned by the State. Encroachment Permit approvals from Caltrans before construction would be required for the Project. Caltrans District 11 provided comments to the Project and recommended a Traffic Control

Plan to be submitted to Caltrans District 11, including the interchange at Interstate 8 (I-8) and Westside Road, at least 30 days prior to the start of any construction. In addition, potential traffic to the Project shall not be unreasonably delayed. The Traffic Control Plan must outline suggested detours to use during closures, including routes and signage. Potential impacts to the highway facilities (I-8 and State Route 98) and traveling public from the detour, demolition, and other construction activities should be discussed and addressed with Caltrans District 11 before Project work begins.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) is responsible for overseeing the California Endangered Species Act (CESA), approving Streambed Alteration Agreements (Section 1602 of the California Fish and Game Code) (SAA), and enforcing the California Native Plant Protection Act. The CDFW would take action associated with any activity where a listed candidate, threatened or endangered species under CESA may be present in the Project area and a state agency is acting as lead agency for CEQA compliance. CDFW would also consider issuance of a Section 2081 incidental take permit for state-only listed species and a Section 2081.1 consistency determination for the effects on species that are both state and federally listed.

A Biological Resources Report and a Burrowing Owl Survey were prepared by RECON Environmental for the proposed Project (these reports are included in Appendix E.1, E.2 and E.3 of this EIR). The applicant will consult with CDFW prior to the start of Project construction. CDFW will review the Project for potential effects on state listed species and determine the extent of its jurisdiction under California Fish and Wildlife Code Section 1602for impacts on drainages from construction, if applicable.

California Regional Water Quality Control Board, Colorado River Basin Region 7

The California Regional Water Quality Control Board (RWQCB), Colorado River Basin Region 7 is responsible for regulating water quality. Construction of the Project would be covered under General Permit for Discharges of Storm Water Associated with Construction Activity (NPDES No. CAS000002) (Construction General Permit Order 2010-2014-DWQ, effective February 14, 2011). The permit requires the applicant to file a public Notice of Intent (NOI) to discharge stormwater and to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP).

California Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) oversees toxic substances procedures and remediation. If the Project is required to submit a Hazardous Materials Management Plan, a Spill Containment, Countermeasure, and Control (SPCC) Plan and/or Hazardous Materials Transportation Plans, DTSC would be responsible for review of these documents. A Hazard Consequences Analysis Report was prepared by Stantec on April 6, 2020 and is included in Appendix H of this EIR. The report concludes that the estimated maximum toxic endpoint distance is primarily within the Project Site's boundary, but does extend to the adjacent undeveloped parcel, which is also controlled by the Applicant.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) oversees various aspects of environmental protection throughout the state. CalEPA will be among the agencies that will be noticed during the public review period and have the opportunity to comment on the Project.

California Native American Heritage Commission

The California Native American Heritage Commission (NAHC) strives for the preservation and protection of Native American human remains and associated grave goods. The NAHC recommended that the County consult with the appropriate California Native American Tribes. The County has performed the necessary consultation.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is responsible for protecting workers and the public from safety hazards. Cal/OSHA will review the Hazardous Materials Management Plan for the Project, as applicable.

1.5.2.3 Local

Imperial Irrigation District

The IID owns and operates the raw water canal system, drainage system and electrical grid in Imperial and Coachella Valleys. IID is responsible for maintaining its water and energy facilities so that it may service its customers. The Project must obtain rights from IID for the Project to encroach into IID canals, drains, and electrical rights-of-way. The Project must obtain approval from IID for water service from IID canals and electrical service from the IID electrical distribution system and obtain backfeed and station service agreements with IID.

Imperial County Department of Public Works

The Imperial County Department of Public Works (ICDPW) manages and oversees the road rights-of-way owned by the County and regulates the approval of Project stormwater design within the unincorporated County. The Project must also obtain approval of grading and civil improvement plans and traffic control plans from ICPDW.

Imperial County Air Pollution Control District

The Imperial County Air Pollution Control District (ICAPCD) is responsible for enforcing air emission requirements to protect public health in the County. These requirements apply to various activities including construction, and operational activities associated with various land uses. The Project will prepare a Dust Control Plan to comply with Rule 801 of the County's Rules and Regulations for Construction and Earthmoving Activities. The Project would also be subject to the ICAPCD's Rule 310 Operational and Development Fees.

Imperial County Fire Department

The Imperial County Fire Department (ICFD) would provide fire protection service to the Project. The Fire Department received a copy of the NOP and was consulted during preparation of this EIR. The Fire Department will review the Project including the final design of the proposed fire safety system and to ensure adequacy of emergency access and circulation.

Imperial County Sheriff's Office

The Imperial County Sheriff's Office would provide law enforcement service to the Project, as necessary. The Sheriff's Office received a copy of the NOP and will review the Project, including the final design, for

adequate emergency access. The Sheriff's Office was also consulted for input during preparation of this EIR.

1.6 RELATIONSHIP TO STATUTES, REGULATIONS AND OTHER PLANS

1.6.1 State

1.6.1.1 Renewables Portfolio Standard Program

The California Renewables Portfolio Standard (RPS) program was established in 2002 by Senate Bill (SB) 1078 (Sher, 2002) with the initial requirement that 20 percent of electricity retail sales must be served by renewable resources by 2017. The program was accelerated in 2006 under SB 107 (Simitian, 2006), which requires that the 20 percent mandate be met by 2010. In April 2011, SB 2 (1X) (Simitian) was signed into law, which codified a 33 percent RPS requirement to be achieved by 2020. In 2015, SB 350 (de León, 2015) was signed into law, which mandated a 50 percent RPS by December 31, 2030. SB 350 include interim annual RPS targets with three-year compliance periods. In addition, SB 350 requires 65 percent of RPS procurement must be derived from long-term contacts of ten or more years. In 2018, SB 100 (de León, 2018) was signed into law, which again increases the RPS to 60 percent by 2030 and requires all state's electricity to come from carbon-free resources by 2045. SB 100 became effective on January 1, 2019.

The California Public Utilities Commission (CPUC) implements and administers RPS compliance rules for certain California retail sellers of electricity, including large and small investor-owned utilities, electric service providers and community choice aggregators. The California Energy Commission (CEC) is responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopting regulations for the enforcement of RPS procurement requirements of Public Owned Utilities (POUs).

The Westside Canal Battery Storage Project, which would be capable of storing and discharging up to 2,000 MWs of electricity at full build-out, would help California meet its statutory and regulatory goals for renewable electricity generation.

1.6.1.2 California Global Warming Solutions Act Of 2006, Assembly Bill 32

This California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32 (Statutes 2006; Chapter 488; Health and Safety Code Sections 38500 et. seq) requires the California Air Resources Board (CARB) to prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas (GHG) emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years; maintain and continue reductions in emissions of GHG beyond 2020; identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020; identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010; adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions; convene an Environmental Justice Advisory Committee to advise CARB in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32; and appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research and GHG emission reduction measures.

1.6.1.3 Senate Bill 32 (2016 Pavley)

SB 32 expanded upon the requirements of the California Global Warming Solutions Act of 2006 by requiring the CARB to ensure that statewide GHG emissions are reduced to 50 percent below the 1990 level by 2030.

1.6.1.4 Title 17 California Code of Regulations

Title 17 California Code of Regulations, Subchapter 20, Article 2, Sections 95100 et seq. are CARB regulations that implement mandatory GHG emissions reporting as part of the California Global Warming Solutions Act of 2006.

1.6.1.5 California Endangered Species Act

CESA is codified beginning at Fish and Game Code Section 2050. This section prohibits "take" of any species listed as an endangered or threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take that is incidental to otherwise lawful activity through take authorization issued by CDFW. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species. Early consultation is also helpful in developing appropriate mitigation to offset losses of listed species populations and their essential habitats. The applicant will consult with the CDFW regarding any issues arising under CESA.

1.6.1.6 California Lake and Streambed Program

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. The California Lake and Streambed Program (Fish and Game Code Sections 1601 to 1603) requires an entity to notify CDFW prior to constructing any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. CDFW is required to propose reasonable project changes and/or mitigation to protect the resource in cases where an existing fish or wildlife resource may be substantially adversely affected. Changes or mitigations are formalized in a SAA between CDFW, the County and the Applicant.

1.6.2 Local

1.6.2.1 Imperial County General Plan and Land Use Ordinance

The General Plan provides guidance on future growth in the County. Any development within the jurisdiction of the County must be consistent with the General Plan and the Land Use Ordinance (Title 9, Division 2).

1.6.2.2 Imperial County Air Pollution Control District

The ICAPCD will review the proposed Project for consistency with the ICAPCD CEQA Air Quality Handbook, the 1991 Air Quality Attainment Plan, and the State Implementation Plan for PM_{10} in the Imperial Valley.

1.7 PUBLIC PARTICIPATION OPPORTUNITIES/COMMENTS AND COORDINATION

Public participation is an essential part of the CEQA process and can be done formal or informally. The following section discusses the public participation process implemented by the County.

1.7.1 Notice of Preparation

The NOP for the proposed Project was issued by the County on April 13, 2020. Five (5) letters were received in response to the NOP from various agencies and individuals. A summary of the areas of concern or issue

raised in these letters is summarized in Table 1.7-1. The comment letters received during the public review period for the NOP are included as Appendix A.2 of this EIR.

Table 1.7-1 NOP Comment Summary

Number	Agency/Individual	Issue Noted or Area of Controversy
1	Department of Transportation, District 11 Maurice Eaton, Branch Chief	• Traffic Control Plan is to be submitted to Caltrans District 11, including the interchange at I-8/ Westside Road, at least 30 days prior to the start of any construction. Traffic shall not be unreasonably delayed. The plan shall also outline suggested detours to use during closures, including routes and signage. • Potential impacts to the highway facilities (I-8 and SR-98) and traveling public from the detour, demolition and other construction activities should be discussed and addressed before work begins. The above issues are addressed in Appendix A, Initial Study, and Appendix L, Transportation Impact Analysis.
2	DTSC Imperial Certified Unified Program Agencies (CUPA) Robert Krug Supervisor/ Environmental Scientist	• Prior to start of business operations, CED informs DTSC Imperial CUPA of their operations, and storage/use of hazardous materials, hazardous waste, underground storage tanks, above-ground storage tanks or be a California Accidental Release Prevention (CalARP) facility. If so, they are not allowed to operate without a permit. The above issues are addressed in Section 3.7, Hazards and Hazardous Materials.
3	Imperial Irrigation District Donald Vargas Compliance Administrator II	The letter made several general comments about submittal requirements, fees, cost responsibility, and provided contact information. Comments were also made with regard to environmental concerns and are noted below. For full comment letter, please refer to the letter in Appendix A.2. • Noted that a distribution rated circuit study will be required due to limited electrical capacity. Any improvements identified in the circuit study to serve the Project's electrical loads shall be the financial responsibility of the applicant. Project may require a transmission backfeed agreement. • Noted IID water facilities that may be impacted include Westside Main Canal, Fern Side Main Canal, Fern Canal, Dixie Drain No. 3, Dixie Drain No. 3a, and the Fig Drain. • Raised concern regarding impact from Project and Site runoff and proposed stormwater retention facilities drainage on IID drains and requested a comprehensive IID hydraulic drainage system analysis. • Noted that IID's canals or drain banks may not be used to access the Project Site. Any abandonment of easements or facilities shall be approved by IID based on systems (irrigation, drainage, power, etc.) needs. • Noted that any construction or operation on IID property or within its existing and proposed right of way or easements will require an encroachment permit, or encroachment agreement (depending on the circumstances). IID encroachment permit is required to utilize existing surface-water drainpipe connections to drains and receive drainage service form IID. • Noted that any new, relocated, modified, or reconstructed IID facilities required for and by the Project (which can include but is not limited to electrical utility substations, electrical transmission and distribution line, etc.) need to be included as part of the Project's CEQA and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. • Noted that piecemealing or segmenting, rather than evaluating the whole of the Project in one environmental document, is explicitly forbidden by CEQA. • Noted that any change in the Project (site plan, etc.) as well as all off-site improvements outside IID right-of-way will be further reviewed for impact to IID's ability to operate and maintain district facilities.

Number	Agency/Individual	Issue Noted or Area of Controversy
		• Noted that all permanent and temporary aspects of the Project need to be evaluated. • Raised concern regarding the roads, bridge, and on-site development as well as any temporary access that could impact the Westside Main Canal. Also raised concern about the short review time with respect to construction schedule. • Requested clarification on stormwater retention and retention basins and their impact on the Westside Main Canal. • Raised concern the septic leach field and any potential of effluent transmission to the Westside Main Canal. • Provided clarification on water service connections and noted that horizontal directional drilling would not be allowed. • Raised concern regarding capacity of retention and retention basins and also potential for off-site runoff such as desert washes to flow into the Project Site and require additional retention volumes. • Requested that access roads be clearly discussed for both permanent and temporary access. The comments also indicate the potential need for encroachment permit and application process to assess impact on IID's operations and maintenance. • Raised concern regarding water source and adequate capacity for fire suppression and noted that no "tapping" of the Westside Main Canal shall be permitted. Nevertheless, water can be obtained in accordance with IID policies. • Raised concern regarding Site's high potential for expansive soils, and that work on the Westside Main Canal bank is restricted and typically not allowed to outside entities. • Raised concerns regarding Project grading near the Westside Main Canal. • Raised concerns regarding Project construction and public traffic with respect to conditions of the Westside Main Canal bank soils, structural strength, nearness to the water, traffic speed, traffic safety, traffic control, coexistence with IID Operations and Maintenance activities and potential conflicts. • Raised concern regarding potable water to be provided by IID. The above issues are addressed in Section 3.7, Hazards and Hazardous Materials.
4	Air Pollution Control District Curtis Blondell Environmental Coordinator	• Recommended that a CalEEMod (California Emissions Estimator Model) be used to determine the threshold of NOx emissions from construction equipment. • Noted that the Air District would like to reserve comments until it reviews the EIR. The above issues are addressed in Section 3.3, Air Quality
5	Imperial County Fire Department Andrew Loper Lieutenant/Fire Prevention Specialist	• Requested additional time to provide comments.

1.7.2 Scoping Meeting

Pursuant to CEQA Guidelines Section 15083, a public scoping meeting was held for the proposed Project to solicit input on the scope and content of the EIR. The scoping meeting was conducted by the County as the Lead Agency and took place on May 28, 2020 at 1:30 PM at the Board of Supervisors meeting room. No members of the public attended the meeting, and no comments were received.

1.7.3 Airport Land Use Commission Meeting

The Project was presented to the Airport Land Use Commission (ALUC) at a meeting on June 17, 2020, and meeting minutes are included in Appendix A. While the Project Site is outside an ALUC compatibility zone, it was submitted to ALUC for review because it includes a General Plan amendment. The Project was found to be consistent with the 1996 Airport land Use Compatibility Plan.

1.8 AVAILABILITY OF REPORTS

This Draft EIR, appendices, and documents incorporated by reference are available for public review at the ICPDS, 801 Main Street, El Centro, California, 92243, during normal business hours Monday through Friday. Electronic copies are also available for review at the City of El Centro Public Library, 1140 North Imperial Avenue, El Centro, California. Documents at these locations may be reviewed during regular business hours. This document is available for review online at the ICPDS's website: http://www.icpds.com.

All comments on the Draft EIR should be directed to:

David Black, Planner III
Email: DavidBlack@co.imperial.ca.us
Imperial County Planning & Development Services
801 Main Street, El Centro, California 92243

Upon completion of the public review period, written responses to all environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to any public hearing on the proposed Project at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision-makers for the Project. Additional information on this process may be obtained by contacting the ICPDS at (442) 265-1736.

1.9 STRUCTURE OF THIS EIR

1.9.1 Draft EIR

This Draft EIR is arranged into the following sections, which contain the contents of an EIR as required by CEQA Guidelines Sections 15120 through 15132.

Executive Summary. This chapter provides a summary of the proposed Project, including a summary of Project impacts, mitigation measures, and alternatives to the proposed Project.

Chapter 1.0 – Introduction. This chapter explains the purposed of the document including Project terminology and overview of the Project; identifies the purpose and objectives of the Project; explains the review and certification process; identifies agencies responsible for review and/or consultation regarding the Project; explains the Project's relationship to statutes, regulations and other plans; identifies public participation opportunities and summarizes comments received on the NOP; provides information regarding the availability; and, outlines the structure of the document.

Chapter 2.0 – Project Description. This chapter provides a detailed description of the Project and its various components; identifies the Project's location and land ownership; specifies the General Plan and zoning designations; provides details regarding the Project's construction, operations, and decommissioning; identifies alternatives under consideration; and explains the intended uses of the EIR and authorizing actions.

Chapter 3.0 – General Environmental Setting. This chapter provides an evaluation of the 11 resource areas determined for inclusion in the EIR by the Initial Study. Each resource area includes a description of the regulatory setting, environmental setting, significance criteria, project impacts, mitigation measures, and level of significance after mitigation.

Chapter 4.0 – Cumulative Effects. This chapter evaluates the cumulative impacts related to each of the resource areas and determines if any cumulatively considerable significant impacts would occur as a result of Project implementation.

Chapter 5.0 – Alternatives. This chapter qualitatively analyzes impacts associated with alternatives to the Project relative to impact resulting from the Project. A summary matrix of impacts for each issue area is included to facilitate comparison of each alternative relative to the Project (greater, same, worse).

Chapter 6.0 – Other CEQA Considerations. This chapter provides a discussion of socio-economic impacts, significant and unavoidable environmental effects, growth-inducing impacts, significant irreversible environmental changes, and mandatory findings of significance.

Chapter 7.0 – Effects Found Not to Be Significant. This chapter contains a statement briefly indicating the reasons that various potential significant effects of a project were determined not to be significant.

Chapter 8.0 – EIR Preparers. This chapter lists all the individuals involved in the preparation of the EIR.

Chapter 9.0 – References. This chapter lists the data references used in preparing the EIR as well as the individuals and agencies consulted and cited in the text.

1.9.2 Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR references several technical studies, analyses, and previously certified environmental documents. Information from the documents, which has been incorporated by reference, is briefly summarized in the appropriate section(s). The documents and other sources utilized in the preparation of this Draft EIR include but are not limited to the following.

- Imperial County General Plan
- Imperial County Municipal Code
- CED Westside Canal Battery Storage Project Initial Study, Stantec Consulting, Inc., April 9, 2020 and Notice of Preparation of a Draft Environmental Impact Report Final Checklist, Imperial County Planning & Development Services Department, Stantec Consulting Services Inc., April 13, 2020 (Appendix A.1)
- Initial Study/NOP Comment Letters (Appendix A.2)
- Visual Resource Impact Assessment, Westside Canal Battery Storage Project, Imperial County, California, Development Design Services & Graphic Access, Inc., July 2020 (Appendix B.1)
- Solar Glare Hazard Analysis: Westside Canal Battery Storage Project, Good Company: Justin Overdevest and Joshua Proudfoot, May 2020 (Appendix B.2)
- Land Evaluation and Site Assessment Analysis for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., January 18, 2021 (Appendix C.1)
- Economic Impact Analysis (EIA), Employment (Jobs) Impact Analysis (JIA), Fiscal Impact Analyis (FIA), Statement of Potential for Urban Decay, Development Management Group, Inc., December 4, 2020 (Appendix C.2)

- Air Quality Analysis for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., March 23, 2021 (Appendix D)
- Biological Resources Report for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., January 18, 2021 (Appendix E.1)
- Results of 2018 Burrowing Owl Habitat Assessment and Breeding Season Surveys for the Westside Canal Energy Center Project, RECON Environmental, Inc., August 3, 2018 (Appendix E.2)
- Results of 2018-2019 Burrowing Owl Non-Breeding Season Surveys for the Westside Canal Energy Center Project, RECON Environmental, Inc., April 8, 2019 (Appendix E.3)
- Jurisdictional Waters/Wetland Delineation Report for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., January 18, 2021 (Appendix E.4)
- Preliminary Geotechnical Investigation, NV5, October 28, 2019 (Appendix F)
- Greenhouse Gas Analysis for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., March 23, 2021 (Appendix G)
- Hazard Consequences Analysis Report, Stantec Consulting Services, Inc., April 6, 2020 (Appendix H.1)
- Phase I Environmental Site Assessment Westside Main Canal Energy Center, Liebert Road South of WSM Canal, Imperial County, California, GS Lyon Consultants, Inc., March 14, 2019 (Appendix H.2)
- Preliminary Drainage Study, Westside Canal Battery Storage Complex, Burns McDonnell, April 3, 2020 (Appendix I)
- SB 18 and AB 52 Tribal Consultation Correspondence (Appendix J.1)
- Results of Cultural Resources Survey of the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., January 18, 2021 (Appendix J.2)
- Water Supply Assessment – Westside Main Canal Battery Storage, Dubose Design Group, January 2021 (Appendix K)
- Transportation Impact Analysis, Westside Canal Battery Storage Complex Project, Imperial County, California, Linscott Law & Greenspan, July 22, 2019 (Appendix L)
- Noise Analysis for the Westside Canal Battery Storage Project, Imperial County, California, RECON Environmental, Inc., January 18, 2021 (Appendix M)

1.10 ISSUES TO BE ADDRESSED

The issues evaluated in this EIR include the physical, biological, geology and soils, and other resources that have the potential to be affected by activities related to the Project. The issues were identified through the preparation of an Initial Study:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Tribal Cultural Resources
- Utilities and Service Systems

1.11 ISSUES SCOPED OUT FROM FURTHER ENVIRONMENTAL REVIEW

- Cultural Resources
- Energy Resources
- Mineral resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Wildfires

2.0 PROJECT DESCRIPTION

Consolidated Edison Development (CED) Westside Canal Battery Storage, LLC (Applicant), is proposing to develop, design, construct, own, operate, and maintain, and eventually decommission the CED Westside Canal Battery Storage Project (Project), a utility-scale energy storage complex with the capacity of up to 2,000 Megawatts (MW) at full build-out. The Project would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as a firm, dispatchable resource. The Project Site is located on approximately 163 acres of land, 148 of which are owned by the Applicant, and the remaining land is owned by the Bureau of Land Management (BLM), IID, and a private landowner. The Project would be constructed multiple phases over a 10-year period with each phase ranging from approximately 25 MW to 400 MW. For the purposes of this analysis, Project construction is assumed to occur over three to five phases. Given the approximately 10-year development of the Project, the expected end date of the Project life cycle would be 30 years from the construction of the final phase, or no more than 40 years after the effective date of the Conditional Use Permit.

The Project would be comprised of lithium-ion and/or flow battery energy storage system (BESS) facilities, a behind-the-meter solar energy facility, a new on-site 230 kilovolt (kV) loop-in switching station, a 34.5 kV to 230 kV Project substation, underground electrical cables, and permanent vehicular access to and from the Project Site over a proposed clear-span bridge spanning IID's Westside Main Canal. The proposed loop-in switching station would connect the Project to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line, which connects to the Imperial Valley (IV) Substation and the California Independent System Operator (CAISO), approximately one-third mile south of the Project Site. CED has submitted the necessary Interconnection Request Applications to the CAISO and IID.

The Project complements both the existing operational renewable energy facilities, and those planned for future development in the County, and supports the broader Southern California's bulk electric transmission system by serving as a firm, dispatchable resource.

2.1 PROJECT OBJECTIVES

The Project would meet the following objectives:

- To construct and operate utility-scale energy storage technologies that are safe, efficient, and environmentally responsible
- To provide load-serving entities and system operators the ability to effectively manage intermittent renewable generation on the grid, thereby creating reliable, dispatchable generation as a firm, dispatchable resource
- To facilitate deployment of additional renewable energy resources in furtherance of the State of California Renewable Portfolio Standard
- To develop an up to 2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production
- To promote local economic development by maximizing the utilization of the local workforce for a variety of trades and businesses

2.2 PROJECT LOCATION AND SITE DESCRIPTION

The Project Site is in the unincorporated Mount Signal area of the County, approximately eight miles southwest of the City of El Centro and approximately 5 miles north of the U.S.-Mexico border.

2.2.1 Existing Site Conditions

The Project Site is generally flat with elevation ranging from sea level in the far southwestern corner to 24 feet above mean sea level in the northeastern corner. The Project Site currently consists of vacant fallow agricultural land. There are two irrigation water pumping stations at the Project Site, one at the central northern area of the Project Site (this area is overgrown with brush) and one at the central southern area. These pumping stations were used to pump irrigation water from the Westside Main Canal into a concrete lined ditch that runs north-south across the center of the southern portion of the Project Site. The pumping stations and concrete lined ditch appear to be abandoned. Man-made berms exist along the boundaries of the inactive agricultural areas, and small dunes and sandy hummocks occur west and south of the Project Site. There are no active agricultural uses on the Project Site. The two CED-owned parcels have remained inactive since 2006 and the parcels on the north have remained inactive since 2013 (RECON Environmental 2021). There is a fenced area at the northwest corner of Liebert Road and the Westside Main Canal that previously had a rural residence occupying the Project Site. The residence has been removed and the Project Site is overgrown with non-native brush.

Infrastructure within the Project Site includes the Westside Main Canal; a 230 kV single-circuit IID transmission line, a IID distribution line, and the Campo Verde 230 kV radial gen-tie line along with their associated easements and maintenance roads; and Liebert Road, which is a County road. Within the Project Site, all infrastructure associated with the previous agriculture operations south of the Westside Main Canal has been removed or is deteriorated and non-functional.

Current activities on the Project Site are minimal and largely limited to the land north of the Westside Main Canal. These activities comprise IID, Customs and Border Protection (CBP), agricultural operations, and occasional fishing activity along the Canal. Vehicle travel in the Project area is limited along the Canal roads (including Mandrapa Road) and Liebert Road. Infrequent vehicle activity associated with the active agriculture occurs on Liebert Road and Mandrapa Road, north of the Canal. Some vehicular activity may also occur from CBP monitoring.

2.2.2 Surrounding Land Uses

The Project Site is approximately one-third mile north of the Imperial Valley Substation (IV Substation) and directly south of the intersection of Liebert Road and the Westside Main Canal. The Project Site and surrounding areas are generally characterized by unimproved, flat, and barren terrain. The Project Site is divided by the Canal with a portion located to the north and a portion located to the south. On the southern portion of the Project Site, BLM lands are located to the south and west, and vacant private land lies to the east. The Campo Verde solar generation facility is located north of the Project Site, across the Canal. Parcels farther north of the Project Site also include a mix of agricultural uses and solar generation facilities. The parcel immediately east of the Project Site is undeveloped. The BLM land south and west of the Project Site is also undeveloped. Figure 2.2-1 shows the surrounding land uses.

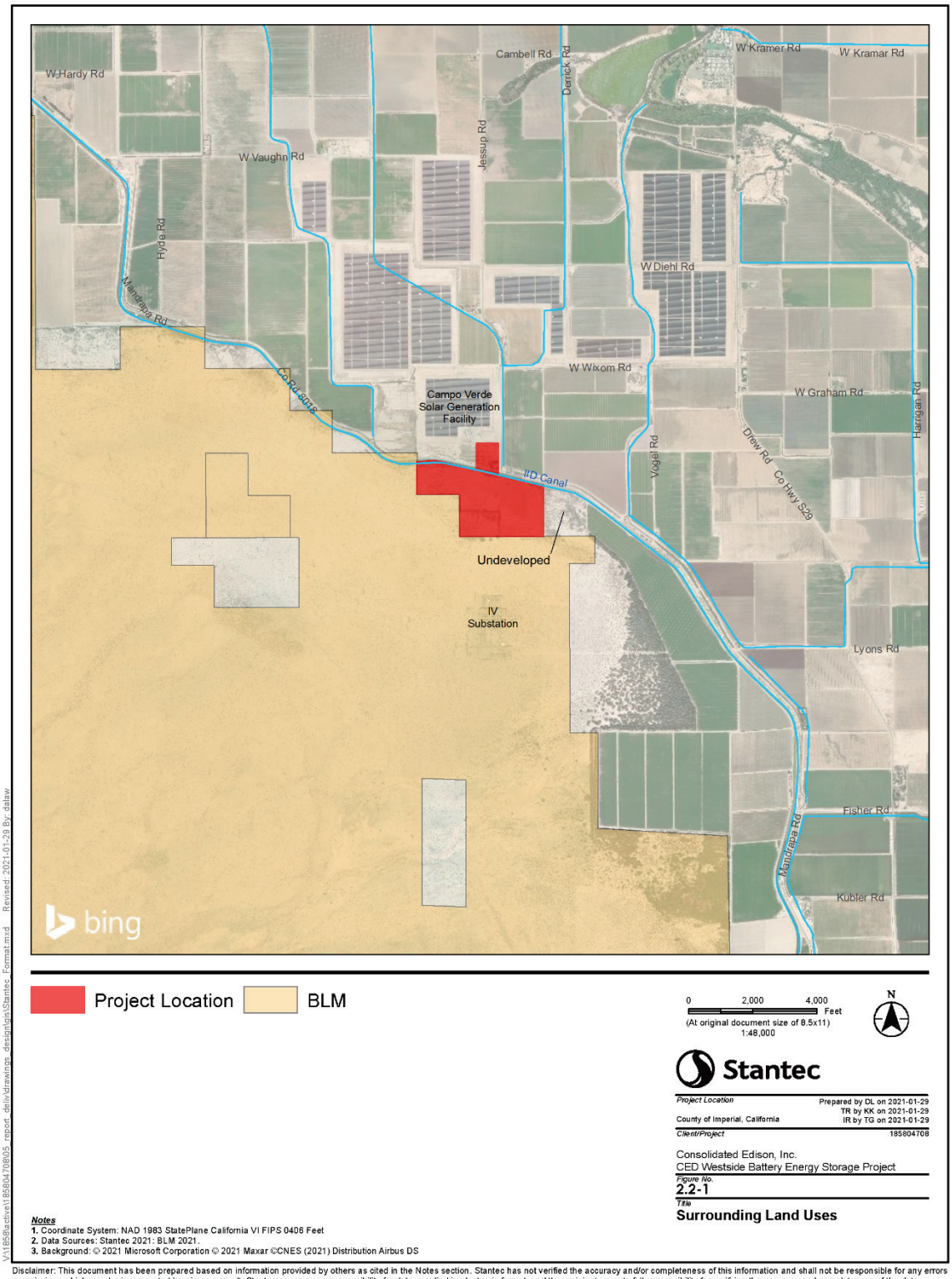


Figure 2.2-1 Surrounding Land Uses

2.2.3 General Plan and Zoning

The General Plan land use designation for the Project Site and parcels immediately to the north and east is Agriculture. The parcels to the west and south are designated as Recreation / Open Space. The County's General Plan land use designation and zoning does not apply to BLM lands farther to the west. The zoning designation for the Project Site and all the parcels immediately adjacent is A-3.

The application for the Project proposes a General Plan Amendment and Zone Change to change the land use designation of the Project Site from Agriculture to Industry, and zoning from A-3 to Medium Industrial (M-2) zoning. A Conditional Use Permit (CUP) would be required and specifically limited to energy production/use.

2.3 PROJECT COMPONENTS

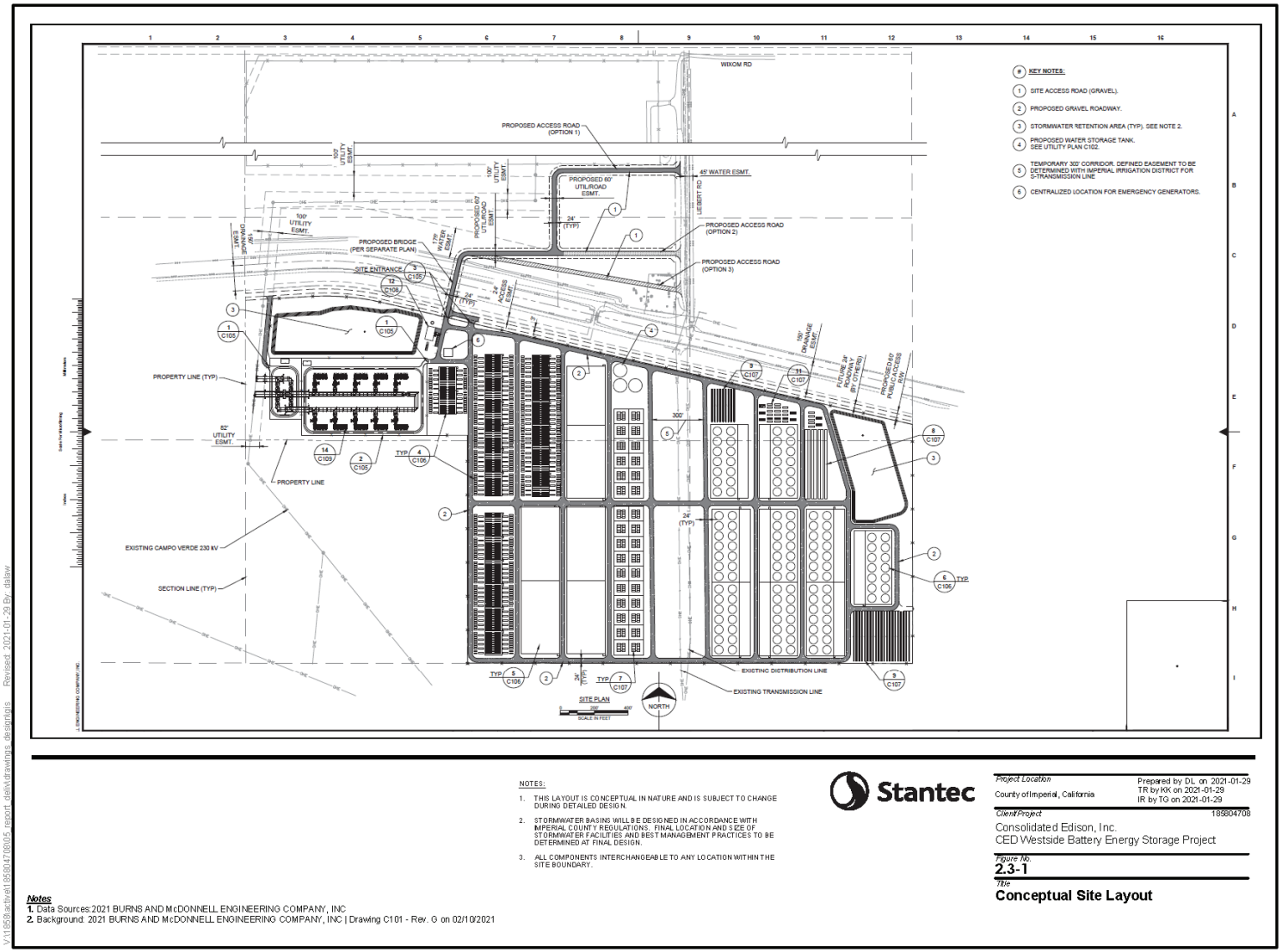
The Proposed Project would construct a utility-scale battery storage facility in multiple phases over a 10-year period, with each phase ranging from approximately 25 MW to 400 MW per phase. The total nameplate (or rated capacity) capacity of the Project at full build-out (all phases completed) would be approximately 2,000 MW. The actual Project configuration would depend on the size of the individual phases and the type of battery technology deployed. The Project components are discussed in detail below.

2.3.1 Common Components

Phase 1 of the Project would include construction of the Operations and Maintenance (O&M) facilities, water connections and water mains, telecommunications, stormwater retention, switching station and Project substation, legal permanent vehicle access including clear-span bridge over the Westside Main Canal, as well as the first energy storage facility. The northwest area of the Project Site would serve as the location for the common facilities, which include the switching station, Project substation, and the O&M facilities. Figure 2.3-1 shows the conceptual site plan. With the Project being built in phases, the necessary infrastructure, such as water-mains, retention ponds and access roads, would be built out to serve the Project phases from west to east and expand over time to serve each phase.

A summary of the common facilities is presented below:

- 230 kV loop-in switching station
  - Connection to Campo Verde-Imperial Valley 230 kV radial transmission line
  - Located on Applicant property
- Project substation
- O&M facilities
- Project parking
- Stormwater retention basins
- Fencing and gates
- Interior access roads
- Clear-span bridge



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 2.3-1 Conceptual Site Layout

Industrial buildings, warehouses, engineered containers, and/or electrolyte storage tanks would be the primary structures needed to house the various Project components. Other components to be located on the Project Site and adjacent to the proposed buildings, warehouses, containers, and tanks include the following:

- Inverters, transformers, power distribution panels
- Underground water-main loop for Project operation and fire suppression
- Underground cable to connect to Project substation
- Project Site access roads (unpaved/crushed rock)
- Fire suppression water storage tanks
- Above-ground potable water storage tanks
- Heating, Ventilation, and Air Conditioning (HVAC) units
- Ground-mounted or roof-mounted Photovoltaic arrays
- Emergency backup generator(s)

2.3.1.1 Operations and Maintenance Facilities

The O&M facilities are expected to be the only manned facilities on the Site. It would include up to approximately 20 full time employees depending upon the number of phases and type of energy storage facility constructed. O&M employees would work typical weekday hours but may work extended hours, including weekends and some 24 hours a day (three, eight-hour shifts), depending upon the Project needs. For sanitary waste, the Project would include a septic leach field to be located near the O&M facilities. The O&M facilities would also require an HVAC unit.

2.3.1.2 Water Connections

During construction, the Project would utilize at least two temporary water connections to the Westside Main Canal for dust suppression and other construction uses. The location and size (including the required gallons per minute [gpm]) and routing of these connections will be determined in coordination with IID. The required facility upgrades needed to tap into the Canal would be designed and constructed by IID. It is anticipated that approximately 210 acre-feet (AF) of water would be required for the full construction of the Project, over the projected 10-year construction time frame (Appendix K).

During operations, potable water would be delivered to the site via haul truck and stored in above ground storage tanks. Water usage for the O&M facilities and personnel would be less than 10,000 gallons per day (gpd). For fire suppression at full build-out, approximately 1,000,000 gallons of raw water from the Westside Main Canal would be stored on-site in a total of 5 tanks with a capacity of 200,000 gallons each.

2.3.1.3 Stormwater Retention

As part of the Project, stormwater retention basins would be constructed at designated locations throughout the Site, based upon the hydrology analysis, to channel and manage stormwater flows. The retention basins would be sized in accordance with the County's Design Guidelines. Based upon these design guidelines, the basins would be able to retain at least three inches of rainfall across the entire Site. The preliminary retention basin design is estimated to have a maximum depth of 5 feet with 4:1 side slopes and provides a retention volume of approximately 40.8 AF. The basins would be constructed using native soil, would be unlined, and able to percolate the anticipated runoff within 72 hours of a rain event. Retention basins may be added with each phase, such that the site might have different drainage areas contributing to each basin.

2.3.1.4 Access Roads

Permanent Vehicular Access

There are no improved roadways in the immediate vicinity of the Project Site that are able to provide legal access to the Project Site. The nearest freeways are Interstate 8 (I-8), located approximately five miles north of the Project Site, and State Route (SR) 98, located approximately five miles south of the Project Site. Drew Road, a 2-lane collector, is located approximately one mile east of the Project Site. All roadways that would be used to access the Project Site from I-8 are currently paved, except for the portion of Liebert Road south of Wixom Road. However, this segment would be paved or graveled during construction in Phase 1.

Private Access Roads

The Project Site is surrounded by private landowners to the east, BLM land to the south and west, and IID maintenance roads and the Westside Main Canal to the north. Due to the property having no current legal direct vehicular access routes, the Applicant is proposing to construct access roads on both the north and south side of the Canal on private land. In addition, the Project would dedicate up to 60 feet of frontage along the north project fence line and south of the IID maintenance road to be used as a buffer from the Westside Main Canal.

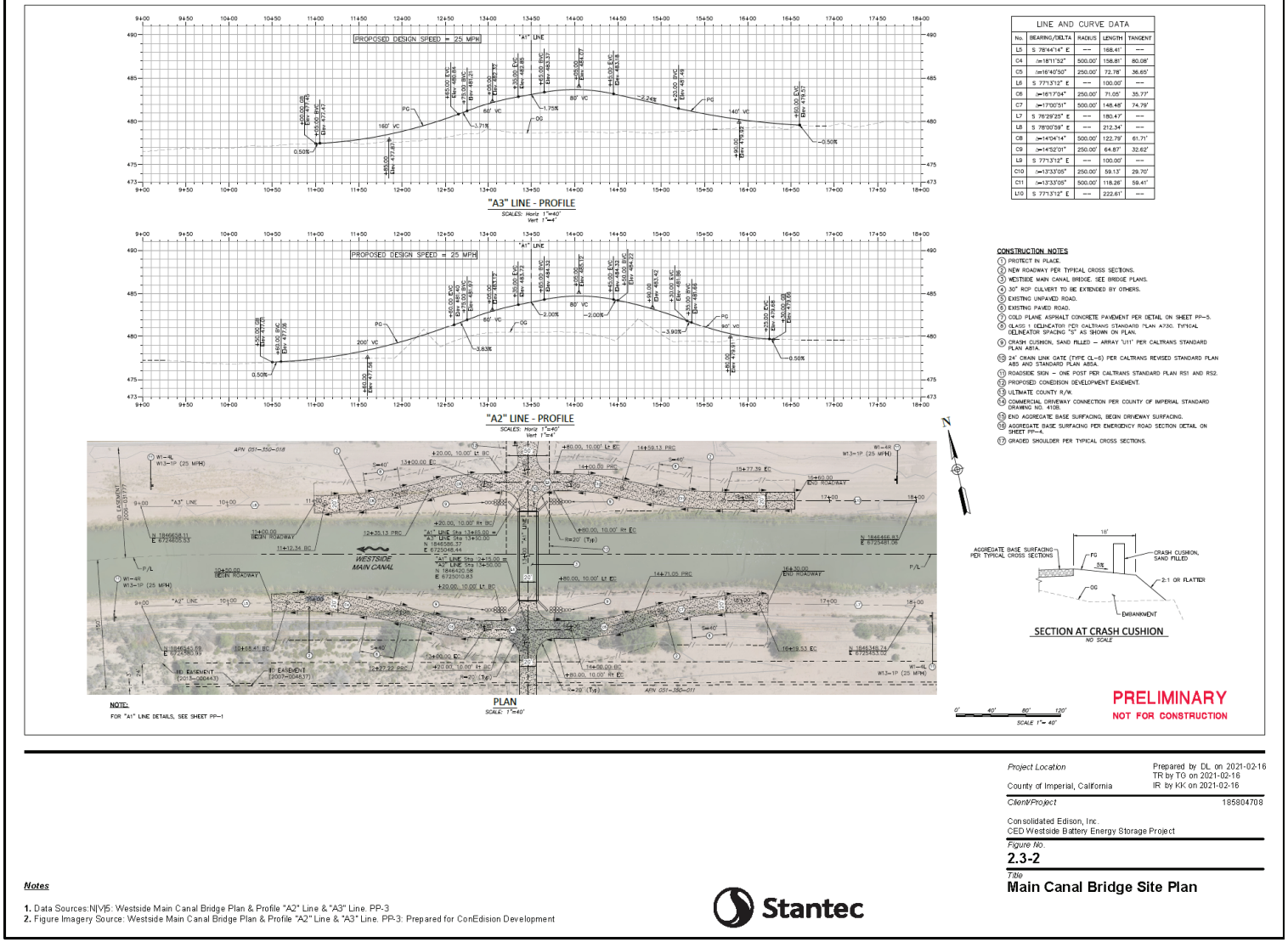
As shown in Figure 2.3-1, two options are currently contemplated as part of the private internal access road system. The design configuration would allow all areas of the Project Site to be readily accessed. The proposed new access roads would be designed and constructed in accordance with the County/IID standards for roadway design.

Clear-Span Bridge

A permanent new clear-span County/IID-specified bridge would be constructed over the Westside Main Canal (Figure 2.3-2 and Figure 2.3-3). The bridge would span the Canal to connect to the proposed access roads on the north side of the Canal. The proposed north access road would ultimately connect the Project to Liebert Road. Construction of the permanent clear-span bridge spanning the Canal requires CED to have access to both the north and south sides of the Westside Main Canal to perform the necessary construction activities.

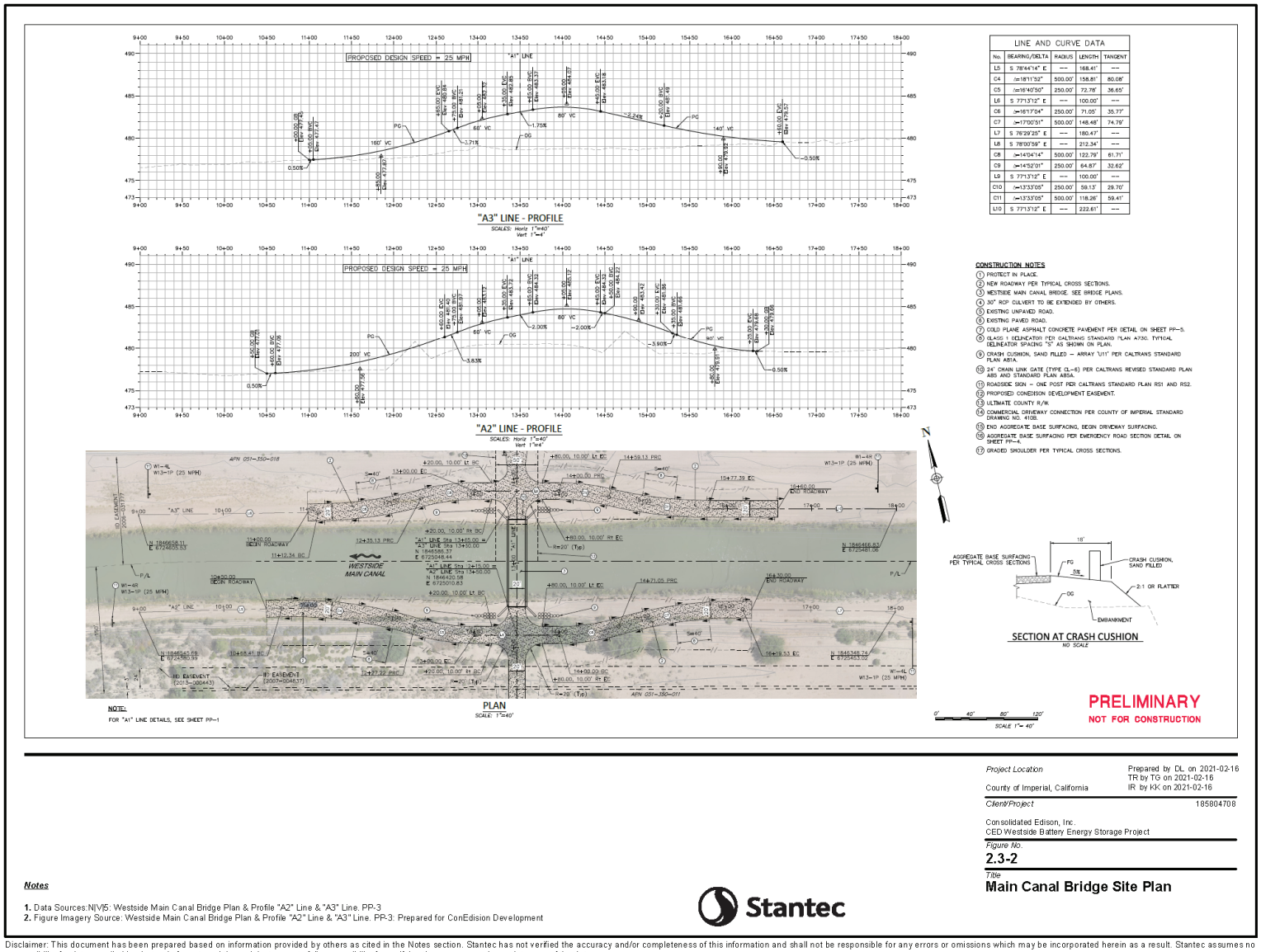
Temporary Access Roads

In addition to being necessary to facilitate construction of the new permanent clear-span bridge, access from both the north side and south side of the Westside Main Canal is being considered that would allow CED to commence construction on the initial phase (Phase 1) of the Project simultaneously, thereby shortening the duration of construction. CED is evaluating various options for temporary construction access, including accessing the Project Site from the south side of the Canal off SR 98, as well as options involving access from the north side of the Canal from I-8. The preferred temporary access option would be used until construction of the permanent clear-span bridge is completed. For the purposes of this EIR analysis, it is assumed that construction workers would travel along Interstate 8 (I-8) and head approximately 5 miles south to the Project Site and would utilize the IID Fern Check Bridge as a temporary pedestrian bridge until the permanent bridge is constructed.



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 2.3-2 Westside Main Canal Bridge Site Plan



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 2.3-3 Westside Main Canal Bridge Elevation

2.3.1.5 Switching Station and Substation Components

The proposed 230 kV loop-in switching station would allow the Project to connect to the existing IID Campo Verde-Imperial Valley radial gen-tie line. The switching station would consist of, but is not limited to the following components:

- 230 kV bus and associated switching devices
- Tubular steel support structures
- Circuit breakers
- Grounding grid
- Prefabricated modular control building to house Supervisory Control and Data Acquisition (SCADA) (unoccupied except during inspection and maintenance)

The Project would also include the construction of a substation located at the western portion of the Site and would include equipment such as switches, circuit breakers, and transformers. The Project substation would be a central hub for the 34.5 kV collector circuits from the energy storage system and would step-up the electricity voltage from 34.5 kV to 230 kV. The substation Site would consist of, but is not limited to the following major components:

- 34.5 kV bus and associated switching devices
- 230 kV bus and associated switching devices
- 34.5/230 kV transformers
- 34.5 kV capacitors, as needed
- Tubular steel support structures
- Circuit Breakers
- Grounding grid
- Prefabricated modular control building to house SCADA (unoccupied except during inspection and maintenance)

The switching station and substation would be constructed as part of Phase 1 of the Project and would be situated on approximately 10 acres. The entire 10-acre site would be graded as part of Phase 1. Construction sequencing would occur as follows:

- Grade site and install drainage features as required
- Install concrete foundations
- Install grounding grid
- Install steel support structures
- Install bus, switching devices, capacitors
- Install control building
- Install fencing
- Install transformer

The applicable 34.5 kV infrastructure, 230 kV circuit breaker, 34.5/230 kV transformer bus structures and capacitor banks would be constructed in conjunction with each new Project phase. The transformers would contain mineral oil or natural esters oil and would not contain sulfur hexafluoride. The substation would be an open-air substation (not gas insulated).

2.3.1.6 Fire Protection/Fire Suppression

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

Depending on the battery storage technology used in each phase, 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)- 9540[1] and test methods associated with UL-9540A. The Project would include either Li-ion and/or flow batteries. Flow batteries are generally not flammable and would not require fire suppression systems. For Li-ion batteries storage, a system would be used that would contain the fire event and encourage suppression through cooling, isolation, and containment. Suppressing a Li-ion (secondary) battery is best accomplished by cooling the burning material. A gaseous fire suppressant agent (e.g., 3M™ Novec™ 1230 Fire Protection Fluid or similar) and an automatic fire extinguishing system with sound and light alarms would be used for Li-ion batteries.

In locations where energy storage equipment is located within buildings, automated fire sprinkler systems would be designed in accordance with the California Fire Code. A fire loop system and fire hydrants would be located throughout the Site for general fire suppression. The fire loop would be built out and extended to serve each phase as the Site is developed. Fire water would be obtained by tapping into the Westside Main Canal and would be stored in on-site tanks adjacent to the Canal. Multiple tanks would be required to provide the needed fire flow volume, and the tanks would be installed in phases as the site is developed and eventually built out. Buildings and containers for both Li-ion and flow batteries would be unoccupied enclosures. These buildings would have an automatic sprinkler system designed in accordance with California Fire Code Section 903 to address local building code requirements.

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. Flow battery tanks would be designed to have secondary containment in the event of a failure. 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 depending upon the technology installed for each phase.

Additionally, the Project Applicant would contribute its proportionate share to purchase, a Type 1 Fire Engine which shall meet all NFPA standards for structural firefighting for the County Fire Department. The Type 1 Fire Engine would be housed off-site within Fire Station #2, located approximately 12 miles from the Project Site.

2.3.1.7 Supervisory Control and Data Acquisition

SCADA controls would be incorporated to allow for local and remote monitoring of the battery storage system. The Applicant anticipates installing fiber on the Site for telecommunications and may also install wireless communications such as microwave, cellular (e.g., rooftop or tower), or satellite. The fiber optic telecommunications cables would connect the proposed substation to the IV Substation, utilizing existing transmission lines. The length of this proposed fiber optic telecommunications cable route is approximately one-third of a mile.

[1] An energy storage system (ESS) certified to UL-9540 is comprises a UL-1973 certified stationary battery pack used in conjunction with a UL-1741 certified inverter.

2.3.2 Battery Storage Components

The Project would store electrical energy from the electrical grid in the form of chemical energy in Li-ion and/or flow batteries, as further discussed below. Energy storage is the capture of energy produced at one time for use at a later time. A device that stores energy is generally called an accumulator or battery. Energy storage involves converting energy from forms that are difficult to store to more conveniently or economically storable forms. Due to requirements for energy storage, Project components, such as the switching station, substation, transformers, and inverters, will be energized at all times with the potential to charge or discharge. The battery storage system would be housed in buildings or containers, which may include roof or ground mounted photovoltaic (PV) arrays and other support equipment and structures. The proposed battery enclosure buildings would total up to 500,000 square feet. The design of the battery enclosures is preliminary. Various sizes and numbers of electrical enclosures would be used depending on the final battery vendor selected.

2.3.2.1 Battery Modules Technology

Lithium-Ion Battery

A Li-ion battery is a type of rechargeable battery that moves from the negative electrode through an electrolyte to the positive electrode during discharge, and back when charging. Li-ion batteries use an intercalated lithium compound as the material at the positive electrode and typically graphite at the negative electrode. The batteries have a high energy density, no memory effect and low self-discharge. Li-ion batteries would be mounted in racks. These racks would be either integrated into either containers or buildings. Li-ion battery racks sit side-by-side and typically have 48 inches of spacing in front of the rack and 18 inches of spacing in the rear of the rack. Spacing may be increased for serviceability. The Project design would meet minimum spacing required by code.

Flow Battery

A flow battery is a rechargeable fuel cell in which an electrolyte containing one or more dissolved electroactive elements flows through an electrochemical cell that reversibly converts chemical energy directly to electricity. A flow battery consists of cell stacks, tanks, pumps, and piping. The cell stack allows for the flow of two electrolyte solutions separated by a membrane. The cell stack also consists of two electrodes used as the current collector. When electricity is applied to the system, an ion exchange occurs between the two electrolyte solutions, which creates a positive and negative charged electrolyte. The tanks store the positive and negative charged electrolyte solutions separately, potentially consisting of separate tanks. Pumps are used to discharge the battery by reversing the flow of the electrolyte through the cell stack which reverses the chemical reaction and produces electricity. Piping is used to connect the cell stacks, tanks, and pumps. The cell stack modules, pumps, and controls would be installed inside industrial buildings or pre-engineered outdoor enclosures. Flow battery cell stack spacing would be dictated by the final manufacturer design. Electrolyte storage tanks and associated piping would be located indoors or outdoors, depending on the technology.

Containers for both technologies are typically separated by 15 feet, with some exceptions, as some manufacturers (Li-ion and flow) situate a select number of containers side-by-side based on their design. Buildings for the Project would be separated by approximately 150 feet, when divided by an internal Project road, and would be side-by-side and adjacent to each other when not divided by a road. This is pending final building size and design.

2.3.3 Backup Generators

The Project would include emergency backup generator(s) to supply auxiliary power to the facility during rare events in which the entire facility or portions of the facility are disconnected from the electrical grid. The project would use a hybrid approach to emergency backup power supply. Rather than relying exclusively on backup generators, the hybrid approach involves dedicating a portion of the battery storage system capacity as a source of emergency backup power. The reserved battery storage capacity would be approximately three to four percent of the size of the constructed battery storage system. This hybrid approach would also rely on the use of on-site, behind-the-meter (BTM) solar power generation to supplement the facility's backup power supply needs. In addition, propane-fueled generators would augment the backup battery storage capacity and the BTM solar power generation.

The generators would be sized to accommodate control systems and HVAC system loads for equipment protection. Approximately 1.25 MW of backup power generation would be needed for every 100 MW of installed battery storage capacity. Each propane-fueled generator would have a capacity of 150 kW or larger. The purpose of the generators would be to provide system safety for events in which the transmission interconnection and the on-site solar generation system are not available, by supplying the battery HVAC system to maintain battery safety and warranty temperature parameters.

The propane-fueled generators would be installed in a central location near common facilities or distributed among individual buildings or containers. The generators would be periodically tested (monthly) to maintain backup capability in the event of a grid outage. All generators would be subject to ICAPCD review and permitting requirements.

2.3.4 Solar Facility Components

On-site, behind-the-meter, PV solar generation would serve a portion the Project's auxiliary power needs and be deployed throughout the Project Site during each phase. Each PV module would be constructed out of either a cadmium telluride (CdTe) semiconductor material or poly-crystalline silicon semiconductor material.

The PV modules would be organized into electrical groups referred to as an array. Arrays would be ground or rooftop mounted. The size of each array would depend upon the capacity of the associated inverters, which in turn would depend on the type and size of the inverters available for purchase and other related electrical design considerations. Conductors would extend from the PV panels to the inverter(s) via a cable management system either underground or above-ground. The output of the inverter(s) will be connected to a transformer (if needed), to match the voltage at the point of interconnection (480 volt [V], 34.5 kV, etc.). The interconnection point would be behind the on-site service meter. The transformers would connect to the system auxiliary load with an above ground or underground cable management system, such as overhead power lines, conduit, direct burial cables, etc.

2.4 SITE SECURITY

A six-foot-tall fence (e.g., chain-link) topped with one-foot barbed wire would be installed around the entire Project Site for safety and to control access. The switching station and substation would also have fences installed around their perimeter. A camera-equipped call button would be installed at the front entry gate to the Site which would be monitored from the Project's O&M facilities. Throughout the Site at various points, security cameras may be installed to monitor other areas of the Project Site during operations. During the construction of each Project phase, on-site security personnel would be present between dusk and dawn and during hours of non-active construction.

2.5 INTERCONNECTION OPTIONS

The proposed point of interconnection for the Project is the IV Substation 230 kV bus. As reflected in the Figure 2.3-1, the Project would include a new loop-in switching station on the Project Site to connect to the existing IID Campo Verde-Imperial Valley 230 kV Radial gen-tie line. This existing gen-tie line connects to the IV Substation approximately one-third mile south of the Project. This location is the point of interconnection to the CAISO grid. The Applicant has submitted the necessary Interconnection Request Applications to the CAISO and IID.

2.6 PROJECT OPERATION

Operation of the Project would require routine maintenance and security. It is anticipated that the Project would employ a plant manager and an O&M manager, as well as the addition of a facility manager once the complex deploys approximately 500 MW of capacity. The complex would also employ staff technicians, with at least one additional technician for approximately every 250 MW of capacity.

Operation of the Project at full build-out would require up to approximately 20 full time employees depending upon the number of phases and type of energy storage facility constructed. O&M employees would work typical weekday hours but may work extended hours, including weekends and some 24 hours a day, depending upon the Project needs. Assuming two one-way trips per employee, the Project would be anticipated to generate up to 40 trips per day from all maintenance and security personnel.

The components that make up the energy storage systems and common facilities require various preventative maintenance and at times corrective maintenance. The O&M staff would maintain the Project in accordance with manufacturer and industry best practice maintenance schedules and requirements. Depending on the technology selected for the energy storage component, the substation and transmission lines as well as behind the meter solar inverters and transformers would be energized at all times.

2.7 DECOMMISSIONING

The Project CUP would expire 40 years after the Effective Date, at which point the Project would undergo decommissioning. in accordance with a Decommissioning Plan. As part of the decommissioning activities, all site improvements that are no longer in use and cannot be repurposed will be removed from the Project Site. Battery modules would be removed from the racks and packaged for return to the manufacturer or their approved Recycling Partner(s) for dismantling, material processing, and recovery. The recycling process would take place entirely off-site. Metals, including copper and aluminum, and metal alloys would be recovered from the process. All solar PV panels would be disconnected and removed from the site and recycled as appropriate. The connecting underground cables, racking systems and support structures would be completely removed. The electrical substation, switching station, inverters, and transformers would also be disassembled and removed from the Site. Any spent or surplus hazardous chemicals collected from the decommissioning process would be transported off-site for disposal according to applicable State and County restrictions and laws governing the disposal of hazardous waste similar to operations. All demolition debris would be transported to an off-site disposal location identified at the time of decommissioning. All infrastructure improvements included as part of the Project that can continue to be used or repurposed (e.g., Westside Main Canal bridge, access roads, O&M building, and buildings housing BESSs) would remain onsite after decommissioning of the Project based on County approval. Any decommissioning implemented at the end of the Project's life would adhere to Imperial County's requirements.

The Project CUP agreement would expire after 40 years from the Effective Date. Following the expiration of the CUP, the future of the Project Site and decommissioning is not reasonably foreseeable due to the inability to predict advancements in rapidly changing energy storage technology, future market conditions or future development of adjacent areas. It is possible for the Applicant, or successor-in-interest, to seek extension or reissuance of the CUP. Alternatively, it may be determined at that time of CUP expiration, due to market conditions, that Project tear down, repurposing or redevelopment is appropriate. Moreover, any action following the expiration of the CUP will be subject to discretionary review and compliance with CEQA. Therefore, in compliance with established CEQA principles, this EIR will not engage in speculation and will only analyze the known project phases – construction, operation, and decommissioning.

2.8 CONSTRUCTION

2.8.1 Phasing

Construction of the first phase would include access roads, permanent clear-span bridge across the Westside Main Canal, switching station, substation, O&M building, and the first battery storage facility. The Project perimeter fence, ground grid, and grading would also be completed during Phase 1 construction. SCADA and Alternating Current (AC) collection circuits would be constructed per their corresponding phase. If approved, the Project is anticipated to begin construction in 2021. The Project would be constructed in three to five phases over a 10-year period with each phase ranging from approximately 25 MW to 400 MW. Assuming a 10-year development period and a 30-year operating life for each phase, the expected end date of the Project would be 30 years from the construction of the final phase or 40 years after the CUP Effective Date. It is anticipated that each phase would be constructed within one to two years of each other. For the purposes of this CEQA analysis, the construction activities are estimated to last for approximately 32 months to complete the full Project build-out. The actual timing and size of each construction phase would be dependent on market conditions and the Applicant's ability to secure commercial contracts with prospective customers.

2.8.2 Construction Access

To access the Project Site, construction workers would travel along I-8 and head approximately five miles south to the Project Site and utilize the IID Fern Check Bridge as a pedestrian bridge until the permanent clear-span bridge is constructed. Parking would be located on the north side of the Canal.

2.8.3 Equipment and Workforce

Construction would include the use of standard construction equipment such as scrapers, excavators, loaders, and water trucks, and other similar machinery. Construction equipment would be used for Site preparation activities such as clearing, grading, perimeter fencing, development of staging areas and Site access roads; and would involve facility installation activities, including support masts, trenching utility connections, construction of electrical distribution facilities, O&M facilities, access roads and clear-span bridge. Delivery trucks also would bring materials to the Site. Depending on the specific phasing of the Project and construction schedule, on-site equipment may be used simultaneously or in phases.

During peak construction activities, approximately 200 workers and 30 daily deliveries would be required. Construction staff and equipment would be determined based on the size and design specifications of each phase. Table 2.8-1 below shows estimates of the construction schedule and equipment that would be needed for each phase. It is anticipated that the common facilities would be constructed simultaneously with the first phase of the Project in order to bring both online at the same time. Construction activities

would only occur Monday through Friday, between the hours of 7:00 AM and 7:00 PM, or Saturday, between the hours of 9:00 AM and 5:00 PM, excluding holidays, per County Ordinance.

Table 2.8-1 Estimated Construction Schedule and Equipment

Construction Equipment	Phase 1 (12 months) Bridge	Phase 1 (12 months) Substation	Phase 1 (12 months) Battery Storage	Phases 2–5 (20 months) Battery Storage
Wheeled Loader	—	—	1	1
Scraper	—	—	1	1
Grader	—	—	1	1
Dozer	—	—	1	1
Excavator	—	—	1	1
Backhoe	1	1	1	1
Rollers	1	1	1	1
Forklift	1	1	1	1
Crane	—	3	3	3
Skid Steer	—	1	2	2
Water Truck[1]	—	—	1	1
Drill Rig	1	—	—	—

NOTE:
Each construction activity would also require a number of pick-up trucks. Emissions associated with pick-up trucks are included in the worker commute calculations.
[1]Water truck modeled as off-highway truck.
Source: Appendix D

2.9 SCHEDULE

Depending on the size of the battery system for a given phase, construction, and commissioning (approval to operate) for each phase is anticipated to take approximately 6 to 12 months. The first phase of construction, as well as construction of the first battery storage phase, is anticipated to last for 12 months. Total construction of the subsequent battery storage phases is anticipated to last for 20 months. The 100-200 MW first phase would require build out of Project common facilities and components, roads, and the proposed permanent clear-span bridge. Subsequent phases would require improvements such as additional substation equipment, water mains and Site road extensions, but would not require construction of additional common facilities.

2.10 DISCRETIONARY ACTIONS

The following permits and approvals may be required to implement the Project. Additional permits and approvals may also be required. This environmental document is intended to address the environmental impacts associated with all of the following decision actions and approvals:

2.10.1 County of Imperial

The County of Imperial has the following discretionary powers related to the Project:

- **General Plan Amendment:** The Project proposes a GPA to change the land use designation for the Project Site from Agriculture to Industry
- **Zone Change:** The Project proposes a Zone Change from Heavy Agriculture (A-3) to Medium Industrial (M-2)
- **Conditional Use Permit:** The use would be limited to Energy Production/Use and would require a CUP to allow a utility-scale energy storage complex in an industrial zone
- **Development Agreement:** The applicant may pursue a Development Agreement with the County for the Project
- **Adoption and Certification of the Final EIR:** The Imperial County Board of Supervisors has authority to determine if the environmental document is adequate under CEQA
- **Approval of Project**: The Imperial County Board of Supervisors would consider approval of the Project

Other local approvals that may be required:

- Encroachment permits
- Parcel map
- Grading permits
- Building permits
- Decommissioning pan
- Other County approvals as necessary to develop the project

2.10.2 Other Agency Required Approvals

- **California Department of Fish and Wildlife (Trustee Agency):** State Endangered Species Act compliance, California Native Plant Protection Act, Streambed Alteration Permit
- **California Regional Water Quality Control Board, Colorado River Basin, Region 7:** Section 401 Water Quality Certification, General Construction Activity Storm Water Permit
- **California Air Resources Board:** Review of EIR
- **California Energy Commission:** Review of EIR
- **California Public Utilities Commission:** Review of EIR
- **California Department of Toxic Substances Control:** Review of EIR
- **Imperial County Air Pollution Control District:** Rule 801 compliance
- **Imperial County Fire Department:** Review of the Site Plan and approval of the proposed fire system
- **United States Army Corps of Engineers:** The Project may impact jurisdictional waters and therefore, a Section 404 Permit may be required from the Corps

3.0 ENVIRONMENTAL IMPACT ANALYSIS

Introduction to Environmental Analysis

In accordance with CEQA Guidelines Section 15126.2, this EIR identifies and focuses on the significant direct and indirect environmental impacts of the Westside Canal Battery Storage Project, giving due consideration to its short- and long-term impacts. Short-term impacts are generally those associated with construction and decommissioning of the Project, while long-term impacts are generally those associated with the operation of the Project components.

As described in Chapter 1.0, this analysis focuses on a limited number of environmental resource topics. Other topics have already been addressed in the analysis that accompanied the Notice of Preparation (Appendix A.1). Sections 3.1 through 3.11 of this EIR contain discussions of the potential impacts related to the construction, operation, and decommissioning of the Project.

Environmental Resource Areas

The potential environmental impacts associated with the implementation of the Project are evaluated for the following environmental resource areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Tribal Cultural Resources
- Utilities and Service Systems

Organization of Environmental Resource Areas

Chapter 3 provides an analysis of impacts for the environmental topics that the County determined could result in “significant impacts”, based on preparation of an Initial Study (Appendix A.1) 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 (Appendix A.2)

Sections 3.1 through 3.11 discuss the environmental impacts that may result from implementation of the Project. Where impacts are identified, recommendations for mitigation measures are proposed that, when implemented, would reduce significant impacts to less than significant. Each environmental issue area in Chapter 3 contains a description of the following:

- **Regulatory Framework** presents the laws, regulations, plans, and policies that are relevant to each issue area. Regulations originating from the federal, state, and local levels are each discussed as appropriate.

- **Environmental Setting** presents the existing environmental conditions on the Project Site and within the surrounding area as appropriate, in accordance with CEQA Guidelines Section 15125. The extent of the environmental setting area evaluated (the Project study area) differs among resources depending on the locations where impacts would be expected. For example, air quality impacts are assessed for the air basin (macroscale), as well as the Project vicinity (microscale); whereas, aesthetic impacts are assessed for the Project vicinity only.

- **Thresholds of Significance** identifies the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic, in accordance with CEQA Guidelines Sections 15126, 15126.2, and 15143. The thresholds of significance used in this EIR are based on the checklist presented in Appendix G of the CEQA Guidelines; best available data; and regulatory standards of federal, state, and local agencies.

- **Methodology** summarizes the resources, methods, procedures, and techniques used to evaluate proposed Project impacts.

- **Project Impacts** identify the level of each environmental impact by comparing the effects of the Project to the environmental setting. Key methods and assumptions used to frame and conduct the impact analysis, as well as issues or potential impacts not discussed further (i.e., such issues for which the project would have no impact), are described. Project impact thresholds are noted in bold text. An environmental impact statement precedes the discussion of each impact while its level of significance after mitigation succeeds the discussion of each impact. The discussion that follows the impact summary includes the substantial evidence supporting the impact significance conclusion.

- **Mitigation Measures** describe any feasible measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts, with measures having to be fully enforceable through incorporation into the Project (PRC Section 21081.6[b]). Mitigation measures are not required for environmental impacts that are found to be less than significant. Where feasible mitigation for a significant environmental impact is available, it is described following the impact. Where sufficient feasible mitigation is not available to reduce environmental impacts to a less-than-significant level, or where the lead agency lacks the authority to implement the mitigation when needed, the impacts are identified as significant and unavoidable.

- **Level of Significance After Mitigation** describes the level of impact significance remaining after mitigation measures are implemented.

- **Cumulative Impacts** describes two or more individual impacts that, when considered together, are significant or that compound or increase other significant environmental impacts. Cumulative impacts can result from individually minor, but collectively significant projects taking place over time (State CEQA Guidelines Section 15355). The incremental impact of a project, although less than significant on its own, may be considerable when viewed in the cumulative context of other closely related past, present, and reasonably foreseeable probable future projects. A considerable contribution is significant for the cumulative impact analysis. The evaluation of cumulative impacts is discussed in Chapter 4.0.

Format of the Impact Analysis

The 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) would reduce 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 publication date of the NOP: April 9, 2020. 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 federal, state, and/or local 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 the construction, operation, and/or decommissioning of the Project would not have any direct or indirect impacts 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 ***less-than-significant impact with mitigation incorporated*** 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 affect 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 a project must be provided where feasible to reduce the magnitude of significant impacts.

- A ***potentially 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 CEQA Guidelines CCR 14 Section 15093, explaining why the lead agency would proceed with a project despite the potential for significant impacts.

3.1 AESTHETICS

This section evaluates the Project's impacts on visual character, light, and glare, as defined below. The information provided in this section is based on the information provided in the Visual Resource Impact Assessment prepared by Development Design Services and Graphic access, Inc. (July 2020), and the Solar Glare Hazard Analysis, prepared by Good Company (May 2020), included as Appendix B.1 and Appendix B.2, respectively, of this EIR.

Aesthetic/Visual Character

Aesthetic character refers to the overall visual environment associated with the Project Site, neighborhood, or area, which may include natural features and/or built (man-made) features, and the relationships between them. The visual environment is based on the visual character of objects and the relationships between them. Pattern elements and pattern character are the attributes of visual character. Visual patterns include the form, line, color, and texture of an object. Pattern character is the visual relationship between pattern elements. The differences in visual character are correlated with the following aspects of pattern character: dominance, scale, diversity, and continuity. The four aspects of pattern character are defined as follows:

- **Dominance:** Specific components in a landscape may be visually dominant because of position, extent, or contrast of basic pattern elements.
- **Scale:** The apparent size relationship between a landscape component and its surroundings.
- **Visual Diversity:** A function of the number, variety, and intermixing of visual pattern elements.
- **Continuity:** The uninterrupted flow of pattern elements in a landscape and the maintenance of visual relationships between immediately connected or related components.

Landscape features of visual interest, referred to as scenic resources, can contribute positively to the aesthetic character of a given area. Natural features with aesthetic value may be large scale, such as topographic features, water features, and vegetation, or small scale, such as trees, landscaping, or rock outcroppings. Built features may include individual examples or collective features of the built landscape, such as iconic buildings or city skylines, historic or thematic buildings or districts, or streetscape elements setbacks, sidewalks, parkways, or signage that provide historic context or consistency of appearance.

The Project is assessed according to the attributes of visual pattern and character. Through photo simulations and extrapolation, the analysis of impacts on aesthetic character considers 1) the Project-related potential for the loss of these or other landscape features that have established or recognized aesthetic value and that contribute positively to the image of an area, and 2) the potential introduction of prominent Project elements that could contrast with or diminish the established aesthetic character.

Light and Glare

The evaluation of lighting and associated impacts considers the potential for increased ambient nighttime light on the Project Site and in the surrounding area and increases that have the potential to spill onto off-site land uses and interfere with off-site activities such as sleep, privacy, safe driving, and the enjoyment of activities that require dark, nighttime conditions.

Artificial light is associated with evening and nighttime hours. Sources may include streetlights, illuminated signage, vehicle headlights, and other light-point sources. Residences and hotels are examples of light-sensitive uses since they are typically occupied by persons who have an expectation of darkness and

privacy during evening hours and are subject to disturbance by bright light sources. This analysis of lighting focuses on whether the Project would cause or substantially increase nighttime lighting effects on light sensitive uses in the Project area.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Glare can also be produced during evening and nighttime hours by artificial light directed toward a light sensitive land use, such as parks and residence. Activities, such as driving, and land uses are considered glare sensitive because the presence of glare could interfere with vision and/or result in an irritant to these activities or uses.

Other Definitions

The following terms and concepts are used in the discussion below to describe and assess the visual environment and anticipated impacts from the Project.

- **Key Observation Point (KOP)**: A point along a travel route or at a use area where the Project would be most visible is a KOP.
- **Sensitive Viewpoints**: Views from public parks, recreational trails, and/or culturally important sites are considered to have a high visual sensitivity and are examples of sensitive viewpoints.
- **Sensitive Receptors**: Areas subject to high visibility by many people are sensitive receptors. Residential viewers typically have extended viewing periods and are considered to have high visual sensitivity.
- **Viewshed**: The landscape that can be viewed free of obstruction under favorable atmospheric conditions from a viewpoint or along a transportation corridor is an example of a viewshed.
- **Visual Compatibility**: The degree to which development with specific visual characteristics is similar in character to its setting determines visual compatibility.
- **Visual Character**: Visual character is formed by the order of the patterns composing it; i.e., form, line, color, and texture of the landscape's components. Their interrelationships can be described in terms of dominance, scale, diversity, and continuity.
- **Visual Impact**: The degree of change in visual resources and viewer response to those resources caused by a development project determines visual impact.
- **Visual Quality**: Visual quality is dependent upon the visual environment's brilliance, distinction, and/or excellence. The two most common criteria to define visual quality are vividness and intactness/unity. A visual resource with a high degree of vividness and intactness/unity will typically have a high level of visual quality.
- **Viewer's Response**: An individual's perception of a view and their enjoyment of a view causes a viewer's positive or negative response.

3.1.1 Regulatory Framework

3.1.1.1 Federal

There are no applicable federal regulations, plans, or policies pertaining to aesthetics that are applicable to the Project.

3.1.1.2 State

California Code of Regulations, Title 24

Title 24 of the California Code of Regulations (CCR), also known as the California Building Standards Code (CBC), consists of regulations to control building standards throughout California, including the following components of Title 24 related to lighting:

- California Building Code ([CBC], Title 24, Part 1) and California Electrical Code (Title 24, Part 3): The CBC and the California Electrical Code stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress.
- California Energy Code (Title 24, Part 6): The California Energy Code defines allowances for lighting power and establishes control requirements for different lighting systems, with the goal of increasing efficiency and reducing energy consumption equipment.
- California Green Building Standards Code ([CALGreen] Title 24, Part 11): CALGreen requires that non-residential outdoor lighting complies with the minimum light level requirements for outdoor lights; light ratings consistent with CALGreen; or light and glare requirements set forth in a local ordinance, whichever is most stringent.

3.1.1.3 Local

Imperial County General Plan

The Imperial County General Plan is a broad-based planning document that contains text, maps, and diagrams explaining the County's long-range growth and development goals and policies. The adopted General Plan contains the Conservation and Open Space Element, which contain policies related to visual resources and regional aesthetics. Goal 5 of the Conservation and Open Space Element states that the aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity (Imperial County 2016).

3.1.2 Environmental Setting

3.1.2.1 Regional

The County extends over 4,597 square miles between Riverside County to the north, Mexico to the south, San Diego County to the west, and Arizona to the east. The County's visual character varies greatly, and there are several types of natural scenic visual resources, such as deserts, sand dunes, mountains, and the Salton Sea. The County also includes large-scale agricultural areas, which dominate visual scenes in the Imperial Valley, as well as other built environments such as urban areas and solar, wind, and geothermal energy development (Imperial County, 2016).

Light and glare may be created day or night from various residential, commercial, and industrial uses throughout the County. The Ocotillo Wind Energy Facility is located along I-8 near the western border between Imperial and San Diego counties. This project has red and white flashing lights on the towers that dominate nighttime views for Ocotillo residents and travelers along I-8 (Imperial County 2016).

3.1.2.2 Surrounding Area

In the area surrounding the Project Site, predominant uses consist of undeveloped land, agricultural, Bureau of Land Management (BLM) land, solar PV installations, and the IV Substation. To the north is the

Campo Verde solar generation facility and a construction staging area. To the west, BLM land is barren, undeveloped, and relatively flat with distant views of hills and the Jacumba Wilderness Area. To the east are undeveloped and agricultural areas, and to the south is undeveloped land, with the IV Substation further south. Very little light and glare is generated in this area of the County. The primary source of light and glare in the area surrounding the Project Site is from motor vehicles traveling on surrounding roadways (Development Design Services 2020).

3.1.2.3 Project Site

The Project Site is characterized by open vistas and largely unobstructed views. Figure 3.1-1 and Figure 3.1-2, at the end of this section, depict existing conditions of the Project Site, which is currently vacant and not in use, as well as identifying the location of Project Site and other features which may not be visible from these vantage points. The Project Site is generally flat, having been graded to support previous agricultural use, and is approximately six feet below above mean sea level (MSL) at its highest and 22 feet below MSL at its lowest. The Campo Verde solar generation facility is located approximately 0.7 mile north of the Project Site. Several residences, Westside Elementary School, Rio Bend RV and Golf Resort. and a residential community are located much farther to the north. Drew Road, several residential structures, agricultural fields, and open space are approximately 1.6 miles to the east; and BLM land managed mainly as open desert is directly to the south and west of the Project. The IV Substation, with its numerous tall transmission towers and other equipment, is located on BLM land south of the Project. Views of the Project Site from surrounding roadways are obstructed by intervening agricultural fields, vegetation, earthen berms, and structures (Development Design Services 2020).

In the Project area, the primary source of light and glare in the area is from motor vehicles traveling on roadways. Glare is generated during daytime hours from the sun's reflection off cars and paved roadway surfaces. Likewise, at night, vehicle headlights on roadways generate light and glare. Warning lighting is also located on the existing IID transmission lines to alert aircraft of potential flight path hazards. Lighting associated with the IV Substation and Campo Verde solar generation facility is also present (Development Design Services 2020).

3.1.2.4 Viewshed

Due to the relatively flat topography of the Project Site and surrounding area, views of the Project Site are available from I-8 to the north and northwest, Drew Road (County Highway 29) to the east, and local roadways to the north and east. Figure 3.1-3 presents the Project viewshed area. The map does not account for intervening structures and vegetation that obstruct views toward the Project, but it does provide us with a generalized presentation of areas from which views of the Project are available (Development Design Services 2020).

3.1.3 Environmental Impacts

3.1.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA guidelines. The Project would result in a significant impact to aesthetics if it would result in any of the following:

a) In nonurbanized 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

b) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (see Appendix A.1 of this EIR) since they were determined to be less than significant or no impact. They are briefly described in Chapter 7:

- Would the project have a substantial adverse effect on a scenic vista
- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

3.1.3.3 Methodology

The evaluation of visual character and visual quality is accomplished by comparing the existing visual environment to the construction and post-construction visual environment and, subsequently, determining whether the Project would result in physical change that is deemed to be incompatible with visual character or degrade visual quality of the Project Site and surrounding area. The information provided in this section is based on the information provided in the Visual Resource Impact Assessment prepared by Development Design Services and Graphic Access, Inc. (July 2020), and the Solar Glare Hazard Analysis, prepared by Good Company (May 2020) included as Appendix B.1 and Appendix B.2, respectively, of this EIR. In accordance with CEQA Guidelines, compliance with the thresholds of significance, and analysis methodologies determined for the Project, this analysis includes the following elements and considerations:

- A map of the viewshed and a discussion of communities and roads from which it may be viewed as a prominent feature
- A discussion of the compatibility of the scale and mass of the Project with the surrounding area
- A discussion of the architectural style of the structures and their use related to how surrounding properties have developed
- Photo simulations and analysis comparing the Project to the existing setting

To evaluate visual impacts, 12 KOPs were selected as shown in Figure 3.1-4. The evaluation of these KOPs as related to the Project's potential impacts to visual character is discussed below.

The glare analysis would assess the potential impact of glare from Project components, including PV modules, as a potential hazard or distraction for motorists, nearby residences, commercial and agricultural facilities, airports and approaching planes. The methodology for the glare analysis consists of 1) identifying the KOPs; and 2) conducting the calculations necessary to determine if the observational points of concern intersect with the angles of light reflection, resulting in glare. For the Project's potential glare analysis, 18 KOPs were identified, including adjacent road intersections, residential and agricultural structures, and regional air strips. Airport analyses include air traffic control towers and approaching flight paths and pilot visibility (Appendix B.2). The glare KOPs relevant for the discussion of potential Project-generated glare impacts are provided in Figure 3.1-5.

3.1.3.4 Project Impacts and Mitigation Measures

a) In nonurbanized 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 point). If the project is in

an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

As described in Chapter 2.0, the Project is in a nonurbanized area. The Project would convert existing fallow agricultural lands, which have not been used for agricultural purposes in over 15 years, to a battery energy storage facility. The Project Site would be developed with man-made elements which may include up to 500,000-square feet of battery enclosure buildings, PV arrays, and other support equipment and structures. The design of the battery enclosure building is preliminary; however, they could be approximately 435 feet long, approximately 225 feet wide, and a maximum of 60 feet in height. A new clear-span bridge across the Westside Main Canal, as well as temporary and permanent access roads, would connect the northern and southern portions of the Project Site.

Construction

During construction of the Project, visual impacts would be temporary and intermittent over the phased 10-year construction period. Short-term impacts associated with Project construction would occur as construction equipment, materials movement, and new vehicular access and traffic sources are added to the Project Site and surrounding area. This would be visible to residential uses and other drivers using adjacent area roadways, including I-8 and Drew Road; however, there are no nearby sensitive viewpoints or receptors to the Project Site, as the nearest sensitive receptor is located approximately one mile away from the Project Site. There would also be some potential for lighting and glare impacts from these construction-related activities and vehicles. As individual construction phases are completed, the amount of equipment would be reduced and moved to other areas of the Project Site during later phases. As such, the visual characteristics of construction would be spread out to different locations within a large area. Due to the temporary, varied, phased, and intermittent nature of construction activities, impacts to visual character and publicly available views would be short term, phased, and spread over different areas of the Project Site, thereby reducing the visual impacts of construction activities (Appendix B.1). Therefore, this impact is less than significant, and no mitigation measures are warranted.

Operation

The Project would introduce a new battery energy storage facility, clear-span bridge over the Westside Main Canal, up to 500,000 square feet of battery enclosure buildings, a loop-in switching station, a Project substation, O&M buildings, connection to the IID Campo Verde-Imperial Valley gen-tie line, parking areas, ground- and/or roof-mounted solar arrays, water storage tanks, security lighting, and other equipment and support facilities. In addition, the entire Project Site would be surrounded by a 6-foot chain link security fence topped with barbed wire. The fence would provide minimal screening, and most of the Project Site would remain visible from surrounding areas and roadways.

The evaluation of visual character includes an assessment of the 12 KOPs depicted in Figure 3.1-4, and the KOPs include existing views of the Project Site from publicly available viewing locations, such as I-8, Drew Road and other local roadways, Westside Elementary School, Rio Bend RV and Golf Resort, and nearby residences.

KOP 1 is the view from I-8 and Dunaway Road, approximately 5.1 miles northwest of the Project Site, and is depicted in Figure 3.1-6. From this location, existing views are expansive and include landforms, desert habitat, overhead utility and tower structures, agricultural areas, and industrial solar facilities. Existing views are assigned a low to medium visual quality rating due to the lack of intactness and unity of the setting. The Project would be viewed in the context of the existing setting and would not be out of character or contrast significantly with the surrounding setting. Although the Project Site would be visible in the distance along the I-8 corridor, the visibility of the Project would be minimized in relation to existing development within the same view corridor.

KOP 2, depicted in Figure 3.1-6, is the existing view from Westview Elementary School looking southeast, encompassing a foreground of agricultural fields, dirt roads, irrigation canals, and the Campo Verde solar facility, overhead utilities, and the IV Substation in the middle ground. In this context, the Project would be visible behind the existing industrial-scale components of the Campo Verde solar facility, including PV arrays, the substation, operations buildings, and overhead utilities. This area is given a low visual quality rating based on its lack of vividness, intactness, and unity. A photosimulation of the Project Site, as viewed from this location, is depicted in Figure 3.1-7. As seen in Figure 3.1-7, the Project would introduce a structure not currently present in this viewshed; however, it would appear less dominant from this location than other existing elements in view. As such, Project components would be consistent to the existing visual character, and contrast would be reduced between the Project elements and the existing visual environment. Furthermore, Project buildings would be non-reflective and painted in light, earth-tone colors to coincide with the existing visual setting, thereby further reducing visual contrast.

KOP 3, depicted in Figure 3.1-8, is the view looking south from the southern end of the Rio Bend RV and Golf Resort and includes landscaping associated with Rio Bend, agricultural uses, outbuildings, natural vegetation, and solar facilities. This view has been assigned a low to medium visual quality rating based on its vividness, intactness, and unity and is representative of what residents and guests see looking south toward the Project. A photosimulation of the Project as viewed from this location is depicted in Figure 3.1-9. As seen in Figure 3.1-9, the Project would be partially visible behind the foreground of vegetation and existing structures and would be viewed in the context of the structures and equipment associated with the Campo Verde solar facility and the IV Substation. Therefore, Project components would relate to similar elements in the existing environment. While the scale of the Project would be greater than existing visual elements, the Project would be lower in elevation within the existing viewshed than the existing man-made elements.

KOPs 4, 6, and 8 are evaluated together since they are in the same vicinity and have viewpoints looking out in the same general direction towards the Project Site. KOP 4, depicted in Figure 3.1-8, shows the view south from the southern edge of an existing residence located north of West Wixom and Liebert Roads. KOP 6, depicted in Figure 3.1-10, is the view looking southwest from Vogel Road, south of an existing residence at the intersection of Vogel and West Wixom Roads. A photosimulation of the Project as viewed from the general location of these KOPs is depicted in Figure 3.1-11. KOP 8, depicted in Figure 3.1-12, is the view looking southwest from an existing residence located at 1995 West Wixom Road. These views are assigned a low visual quality rating based on lack of vividness, intactness, and unity and are representative of what residences and travelers along local roadways experience when viewing the Project. The views from KOPs 4, 6, and 8 include intensive agriculture, the Campo Verde solar facility, overhead utility lines, and the mountains in the distance. Therefore, Project components in this area would be similar to the existing visual elements, both man-made and natural. While Project structures would introduce a scale of development not currently present in this viewshed, the Project elements would appear lower than other surrounding elements in this viewshed. Natural mountain landforms would remain dominant, and existing vegetation and canal berms would obscure lower portions of the Project from view.

KOPs 5, 11, and 12 are evaluated together since they are in the same vicinity and have viewpoints looking out in the same general direction towards the Project Site. KOP 5, depicted in Figure 3.1-10, shows the view looking south toward the Project Site from Liebert Road, near the southern edge of the Camp Verde solar facility. KOP 11, depicted in Figure 3.1-13, shows the view from Mandrapa Road looking southeast towards the Project Site. KOP 12, also depicted in Figure 3.1-13, shows the view south of the Westside Main Canal looking towards the Project entry. These views are assigned a low visual quality rating based on lack of vividness, intactness, and unity. Views from KOPs 5, 11, and 12 include a variety of elements, such as dirt roadways, fallow fields, agricultural areas, desert vegetation, dominant overhead utility lines, the Westside Main Canal and associated earthen berms, the Campo Verde solar facility, and mountains in the background. These views are close in proximity and represent the areas that would be the most affected by the Project. These areas currently have minimal traffic as they are primarily used for canal maintenance, access to the Campo Verde solar facility, and access to the Project Site. As viewed from these areas, the

Project would appear from behind the earthen canal berms with a foreground of vegetation and structures. Similar to other KOPs, Project components would largely relate to existing man-made elements in view. The Project would appear as an extension to the existing blend of industrial characteristics and natural elements of the Project area. Natural mountain landforms would remain dominant, and existing vegetation and canal berms would obscure lower portions of the Project from view.

KOPs 7, 9, and 10 are evaluated together since they are in the same vicinity and have viewpoints looking out in the same general direction towards the Project Site. KOP 7, depicted in Figure 3.1-12, shows the view looking southwest from Drew Road, south of the existing residence and the intersection of Drew and West Graham Roads. KOP 9, depicted in Figure 3.1-14, is the view looking west towards the Project Site from Drew Road. KOP 10, also depicted in Figure 3.1-14, is the view looking northwest from Drew and Lyons Roads. A photosimulation of the Project as viewed from this location is depicted in Figure 3.1-15. These views are from the Drew Road Corridor and include views of the Project Site to northbound and southbound drivers. This area is assigned a low visual quality rating based on its lack of vividness, intactness, and unity. Views from KOPs 7, 9, and 10 include a foreground of agricultural fields, dirt roads, irrigation canals, the Campo Verde solar facility, overhead utility lines, the IV Substation, mature vegetation in the middle ground, and mountains in the background. Speeds along the Drew Road Corridor are approximately 55 miles per hour, so views of the Project Site would be short in duration. Mature vegetation and existing structures would obscure Project elements from view, and these elements would appear similar to those in the surrounding area; therefore, contrast between the Project and the existing visual environment would be minimized.

Operation of the Project would alter the visual character of the Site and its surroundings. However, the Project would be consistent with the County's General Plan goals and policies related to minimizing adverse aesthetic impacts (Imperial County 2016), as the Project appear consistent with the existing visual environment. Project-related impacts to the visual environment would be reduced: there would be limited visual contrasts, and views towards major mountain landforms would be preserved. As discussed below, new sources of light and glare would not adversely affect daytime or nighttime views in the Project area. Therefore, impacts to visual character and quality in the area would be minimal, and the Project would be consistent with General Plan goals and policies related to conservation and open space.

In conclusion, based on the above evaluation of 12 KOPs (including four photosimulations) and consistency with the County's General Plan goals and policies, development of the Project would not substantially degrade the existing visual character or quality of public views of the Project Site and its surroundings. Therefore, impacts to visual character would be less than significant, and no mitigation measures are warranted.

Decommissioning

Decommissioning of the Project would involve dismantling and removing Project components after the maximum CUP lifespan of 40 years. Decommissioning activities would reintroduce construction equipment to the Project Site for a temporary period. Since the Project Site would have already been maintained as a battery energy storage facility for many years, with maintenance equipment and other activities taking place therein, decommissioning would not degrade the visual character of the Project Site or surrounding area at that time. Public views of the Project Site after decommissioning activities would be similar to the views during Project operation, as the same Project components, such as the Westside Main Canal clear-span bridge, access roads, O&M building, and buildings housing the battery energy storage facility would remain on the Project Site and continue to offer the same visual character. Therefore, impacts to visual character due to decommissioning would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

b) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Project proposes to use non-reflective rooftop and ground-mounted PV panels, which are not anticipated to create substantial glare to surrounding areas as further discussed below. In addition, the Project's lighting system would be designed to provide minimum illumination for security and safety.

Construction

During construction, short-term sources of lighting and glare would occur as part of the Project Site's staging, storage, security areas, and from vehicles traveling in the immediate area to access the site. Construction-related lighting would be directed towards the Project Site. Short-term sources of glare from vehicle windshields or metallic surfaces of PV panels and support structures may occur intermittently over the Project phases. No daytime or nighttime views in the area would be significantly affected, and there are no sensitive viewpoints or receptors in close proximity to the Project Site. Therefore, Project-related light and glare impacts would be less than significant, and no mitigation measures are warranted.

Operation

Project-related lighting would be the minimum required to provide security and necessary illumination to the Project Site for O&M activities. In accordance with applicable regulations, including CCR Title 24, Project lighting would be designed for safety along pathways and would be shielded and directed downwards to minimize light spill onto neighboring properties and intrusion into dark skies.

With respect to the analysis of potential glare impacts, building materials would be non-reflective. It is important to note that the PV panels are designed to absorb sunlight to convert it into electricity and not reflect it. Manufacturers of PV panels design them to minimize the reflected sunlight. This is typically accomplished by applying anti-reflective coatings and surface texturing of solar cells. The addition of protective layers over the PV panels further reduce the amount of visible light reflected from the panels (Appendix B.2).

To provide an evaluation of the Project's glare potential, the five most relevant glare KOPs, as depicted in Figure 3.1-5, were analyzed, as these were the only glare KOPs from which Project-related glare could be experienced. In addition, an evaluation was completed of the following: the reflectivity of flat-plate solar panels in the surrounding environment, the visibility of a direct reflection of sunlight for south-facing fixed-mount panels, and a comparison of fixed-mount and single-axis tracking mount panels. The following points describe the main variables adjusted for the glare analysis (Appendix B.2):

- **Short windows of glare:** Glare could occur from March through October for short periods of time (approximately 5 to 20 minutes) during morning and evening hours with most Project glare KOPs experiencing low or no glare. The intensity of the glare is low to moderate, never extensive or dangerous.

- **Assessed multiple observation points:** Strategically placed KOPs were analyzed surrounding the Project Site, with only five of the 18 points showing potential for glare (KOPs 2, 3, 6, 17 and 18).
- **No dwellings or commercial structures are affected:** Only auxiliary gravel roads, agricultural areas, and electrical lines indicated potential for glare.
- **Taller building design could be a challenge:** The potential for glare is highest with the 60-foot building height, 25-degree panel tilt roof-mount array option, with generally higher glare anticipated from the 25-degree tilt as compared to a 10-degree tilt.
- **No impact on adjacent sensitive sites:** There is no airport/runway glare predicted at Imperial County Airport nor the nearby Naval Air Facility El Centro. There is no glare at either air traffic control tower. There is no glare predicted at the nearby IV Substation.

Glare KOP 2 is located north and adjacent to the Project Site on an existing bridge and facility on the Westside Main Canal. This facility does not appear to be frequently visited. At this location, there would be low glare impacts, with less than 15 minutes of glare in the evenings during spring and fall months.

Glare KOP 3 is located east of the Project Site, at the intersection of Mandrapa Road and Fig Drain, near agricultural land. There are no other structures nearby. At this location, there would be moderate glare impacts, with less than 20 minutes of glare in the evenings during spring, summer, and fall months.

Glare KOP 6 is located southeast of the Project Site, at the intersection of Mandrapa and Lyons Roads, near agricultural land. There are no other structures nearby. At this location, there would be low glare impacts, with less than 10 minutes of glare in the evenings during summer months.

Glare KOP 17 is located southwest of the Project Site. It is located on undeveloped land with large electrical utility lines. There are no other structures nearby, as the area is mainly visited by utility workers conducting line maintenance. At this location, there would be moderate glare impacts with approximately 20 minutes or less of glare in the mornings during spring, summer, and fall months.

Glare KOP 18 is located north and adjacent to the Project Site, on Mandrapa Road, east of Liebert Road, and near agricultural land. There is one structure, but evidence suggests that the structure may be abandoned or used only for storage. At this location, there would be low glare impacts, with less than five minutes of glare in the evenings during the months of March, September, and October.

Based on the above, including the minimal new Project lighting, characteristics of the PV panels, their reduced potential for reflectivity, and the low to moderate intensity of glare during short periods of time (approximately 5 to 20 minutes), Project-related operational light and glare impacts would not adversely affect daytime or nighttime views in the area. Therefore, this impact would be less than significant, and no mitigation measures are warranted.

Decommissioning

Decommissioning of the Project would involve dismantling and removing Project components, after the maximum CUP lifespan of 40 years. Importantly, solar PV panels would be removed from the Project Site, thereby eliminating glare potential from that particular source. It is likely that some illumination would remain on the Project Site for security purposes; however, any impacts from these light sources after decommissioning would be less than or similar to conditions during Project operation. Therefore, light and glare impacts associated with decommissioning would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.



View looking southwest toward the IID Campo Verde solar generation facility



View looking northeast toward project site, the Imperial Valley Substation, Centinela Peak, and the Yahu Desert

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

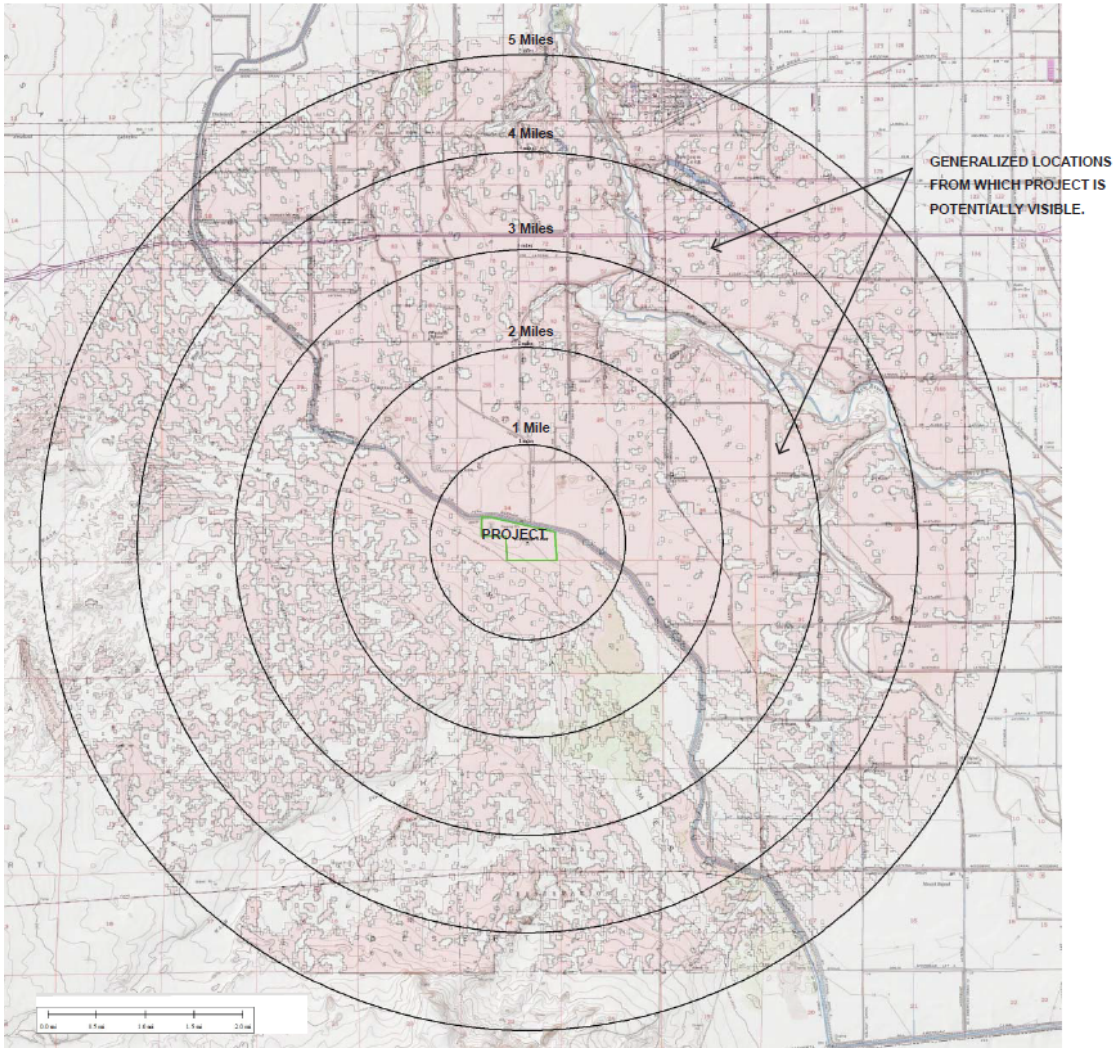


View southeast toward residential structures



View northeast toward Project, with the Westside Main Canal in the foreground and Centinela Peak in the background

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020



NOTES:

1. Analysis excludes view blocking foreground vegetation, & structures, and is based on digital base data accurate to within 10 meters.
2. This exhibit evaluates visibilty of a 60-foot structure to a visual receptor located 5' above existing ground elevation.

Source: Global Mapper, USGS

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Sources: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020
3. Background: USGS Topo

Stantec

Project Location
Imperial County

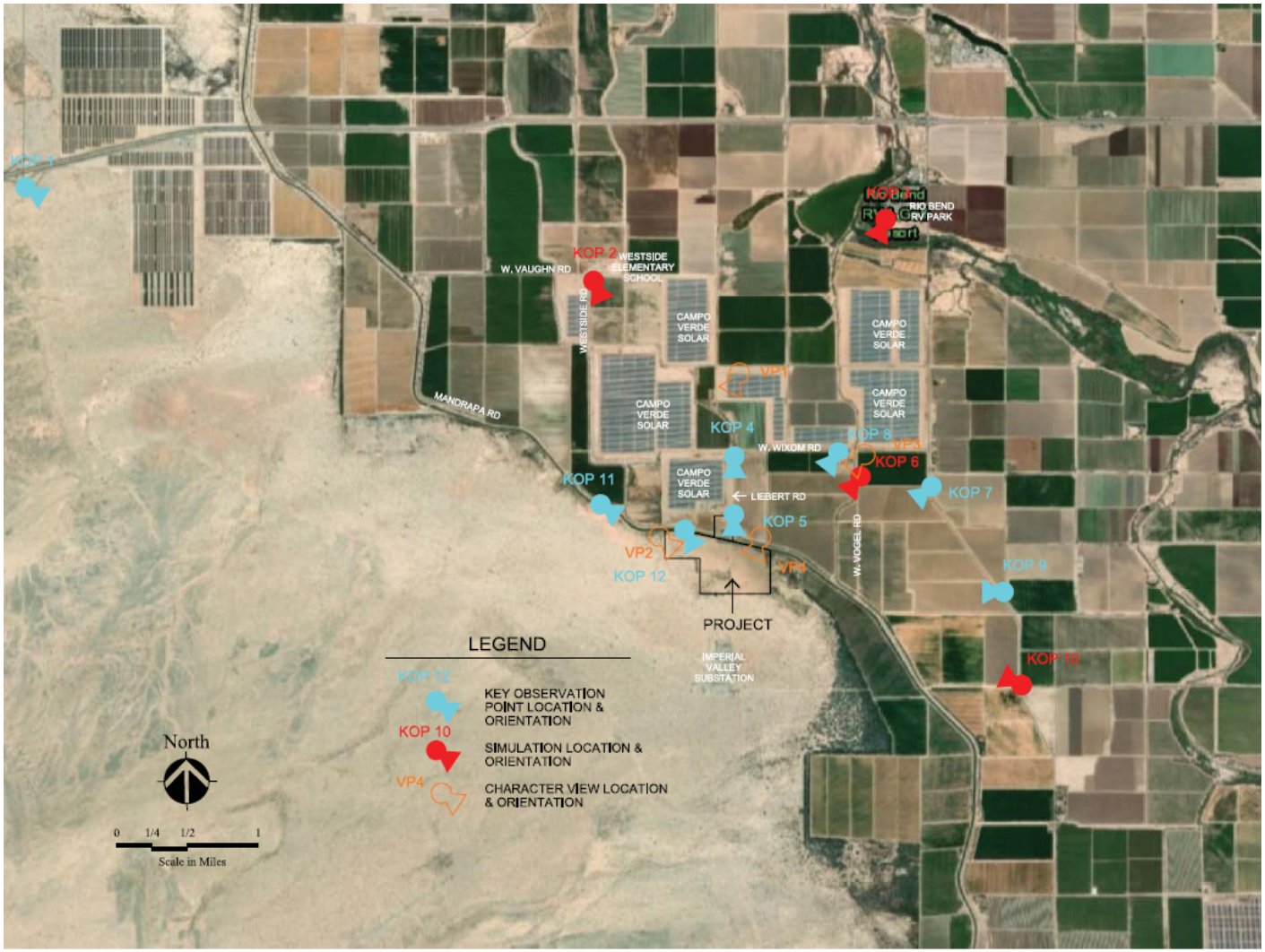
Prepared by DL on 2020-07-20
TR by ST on 2020-07-20
IR by CA on 2020-07-20

Client/Project 185804708
Consolidated Edison Development
Westside Canal Battery Storage Project
Westside Canal Battery Storage Project Draft Environmental Impact Report

Figure No.
3.1-3

Title
Generalized Viewshed

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Sources: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020
3. Background: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, April 8, 2020

Stantec

Project Location
Imperial County

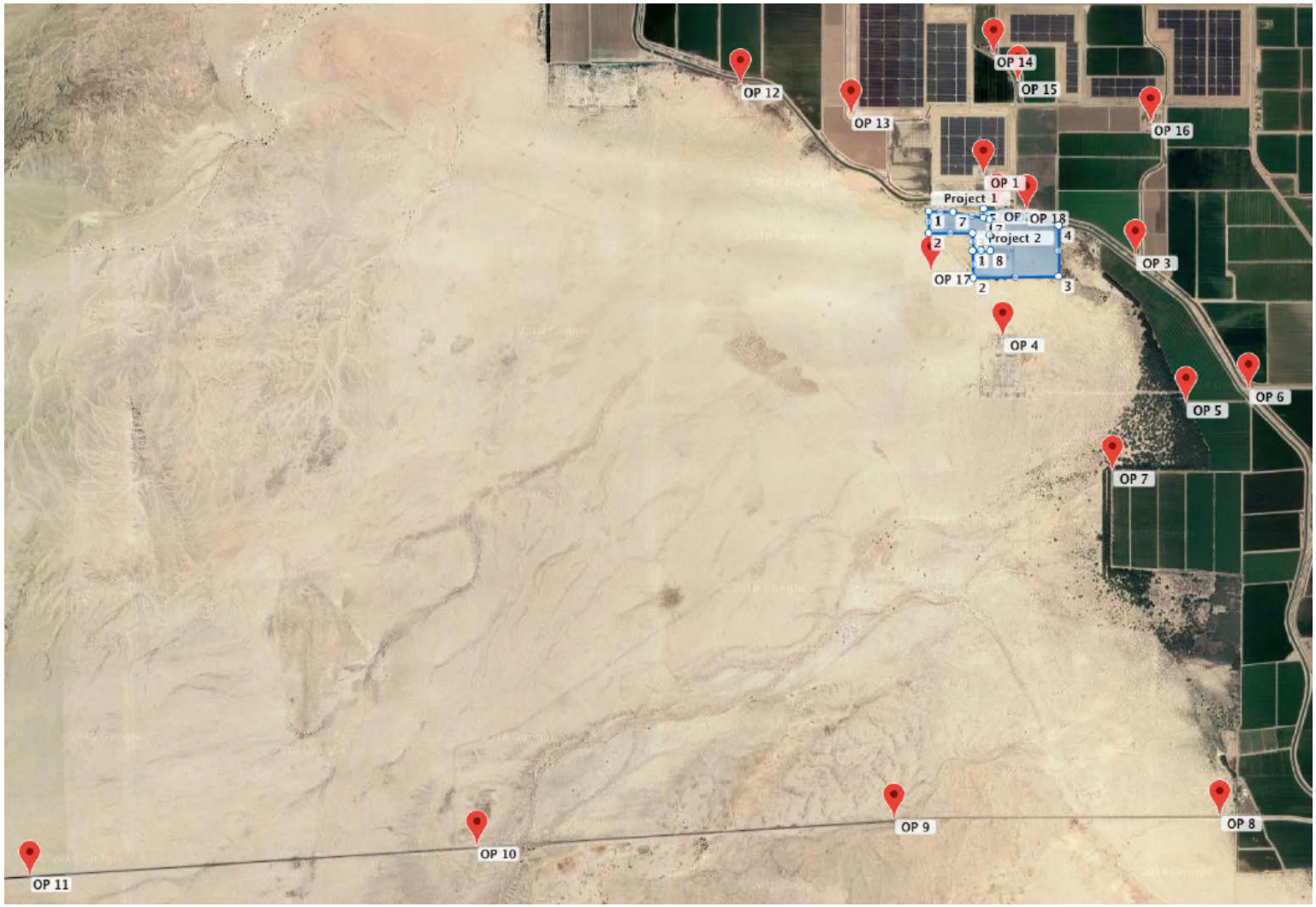
Prepared by DL on 2020-07-20
TR by ST on 2020-07-20
IR by CA on 2020-07-20

Client/Project 185804708
Consolidated Edison Development
Westside Canal Battery Storage Project
Westside Canal Battery Storage Project Draft Environmental Impact Report

Figure No.
3.1-4

Title
Vicinity Map & Key Observation Points

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Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Sources: Good Company. Solar Glare Hazard Analysis. May 2020
3. Background: Google Earth

Stantec

Project Location
Imperial County

Prepared by DL on 2020-07-20
TR by ST on 2020-07-20
IR by CA on 2020-07-20

Client/Project 185804708
Consolidated Edison Development
Westside Canal Battery Storage Project
Westside Canal Battery Storage Project Draft Environmental Impact Report

Figure No.
3.1-5

Title
Key Observation Points With Potential For Glare

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KEY OBSERVATION POINTS 1 & 2
Figure 3.1-6
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #1 - View from Interstate-8 and Dunaway Road looking southeast, approximately 5 miles from Project



KOP #2 - View near the Westview Elementary School looking southeast, approximately 1.8 miles from Project

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

PHOTO SIMULATION 1
Figure 3.1-7
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #2 - View near the Westview Elementary School looking southeast

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

KEY OBSERVATION POINTS 3 & 4
Figure 3.1-8
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #3 - View south from southern end of Rio Bend RV Resort and Golf Course, approximately 2.5 miles from Project



KOP #4 - View south from southern edge of residence located north of West Wixom/Liebert Roads, approximately 0.6 mile from Project

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

PHOTO SIMULATION 2
Figure 3.1-9
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #3 - View looking south from the southern end of the Rio Bend RV Resort and Golf Course Community

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020



KOP #5 - View looking south toward Project from Liebert Road near southern edge of the Campo Verde Solar Project, approximately 0.2 mile from Project



KOP #6 - View southwest from Vogel Road, south of existing residence at intersection of Vogel Road and West Wixom Road, 0.8 mile from Project

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

PHOTO SIMULATION 3
Figure 3.1-11
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #6 - View looking southwest from a location on Vogel Road, south of an existing residence located at the intersection of Vogel Road and West Wixom Road

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

KEY OBSERVATION POINTS 7 & 8
Figure 3.1-12
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #7 - Looking south west from Drew Road, south of existing residence at the intersection of Drew Road and West Graham Road, approximately 1.2 miles from Project



KOP #8 - View looking southwest from residence located at 1995 West Wixom Road, approximately 0.84 mile from Project

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020



KOP #9 - View looking west toward Project from Drew Road, approximately 1.7 miles from Project



KOP #10 - View looking northwest from Drew Road and Lyons Road, approximately 1.9 miles from Project

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

KEY OBSERVATION POINTS 11 & 12
Figure 3.1-14
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #11 - View from Mandrapa Road, looking southeast approximately 0.49 mile from Project



KOP #12 - View south of canal approximately 236 feet from Project entry

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

PHOTO SIMULATION 4
Figure 3.1-15
Photographs of the Property and Vicinity
Site Name: Westside Canal Solar Facility
Imperial County
Date: July 2020



KOP #10 - View looking northwest from Drew Road and Lyons Road

Image & Description Source: DEVELOPMENT DESIGN SERVICES & GRAPHICACCESS, INC. July 2020

3.2 AGRICULTURE AND FORESTRY RESOURCES

This section describes the environmental and regulatory setting for environmental impacts related to agriculture and forestry resources. It also describes the existing conditions and potential impacts on agricultural resources that could result from implementation of the Project and mitigation for potentially significant impacts, where feasible. This evaluation relies upon the data and findings of the Land Evaluation and Site Assessment Analysis for the Westside Canal Battery Storage Complex Project, Imperial County, California, prepared by RECON Environmental, Inc., January 18, 2021 (C.1). In addition, an Economic Impact Analysis (EIA), Employment/Jobs Impact Analysis (JIA), and Fiscal Impact Analysis (FIA), and Statement of Potential for Urban Decay was prepared for the Project, by Development Management Group, Inc., December 4, 2020 (Appendix C.2).

3.2.1 Regulatory Framework

3.2.1.1 Federal

No federal regulations pertaining to agricultural resources apply to the Project.

3.2.1.2 State

Williamson Act

The California Land Conservation Act of 1965 (Government Code [GC] Section 51200, et seq.), also known as the Williamson Act, protects farmland from conversion to other uses by offering owners of agricultural land a property tax incentive to maintain their land in agricultural use. Under the Williamson Act, the landowner voluntarily enters a contract with the county or city in which their property is located to maintain the land in agricultural or a qualified open space use for a minimum of ten years. In return, the property tax on the land is based on its productive value rather than its assessed valuation. A Williamson Act Contract is automatically renewed unless a notice of nonrenewal is filed in advance of the contract renewal date.

The preferred method for withdrawing from a Williamson Act Contract is filing a notice of nonrenewal, which can be initiated by either the land use agency or the landowner. Under this process, the contract is ended after a nine-year nonrenewal period, during which taxes gradually increase every year. A Williamson Act Contract cancellation is an option under limited circumstances and conditions set forth in GC Section 51280 et seq. In such cases, landowners may petition the board or council of their county or city for cancellation of the Williamson Act Contract. The board or council may grant tentative cancellation only if it makes required statutory findings (GC Section 51282(a)). The board or council must consider comments from the director of the California Department of Conservation (DOC) before acting on a proposed cancellation if comments are provided. A cancellation becomes final and a Certificate of Cancellation is issued by the board or council upon the completion of all Conditions of Approval.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) is a non-regulatory program of the DOC that inventories the state's important farmlands and tracks the conversion of farmland to other land uses. The FMMP publishes reports of mapped farmland and conversions every two years, categorizing farmland on the basis of soil quality, the availability of irrigation water, current use, and slope among other criteria. The following are the categories of farmland identified in the FMMP:

- **Prime Farmland**. Farmland with the best combination of physical and chemical features 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.** Farmland 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 four years prior to the mapping date.

- **Unique Farmland.** Farmland of lesser quality soils than Prime Farmland or Farmland of Statewide Importance, used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock.

The FMMP considers all of the above, except Grazing Land, to be important Farmland.

Farmland and Soil Classification

The DOC's FMMP identifies important farmland throughout California based on both current use and soil quality. In order to be classified as Prime Farmland by FMMP, land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Within California, land must meet at least one of five specified criteria in order to qualify as Prime Agricultural Land (California GC 51201). The five specified criteria are as follows:

1. All land that qualifies for rating as Class I or Class II in the Natural Resource Conservation Service land use capability classifications.

2. Land which qualifies for rating 80 through 100 in the Storie Index Rating.

3. Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.

4. Land planted with fruit- or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars per acre.

5. Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars per acre for three of the previous five years. The soils on the project site meet the characteristics described in the federal regulations.

The Storie Index is a semi-quantitative method of rating soils for irrigated agricultural use based on crop productivity data. It assesses soil productivity based on four characteristics: the degree of soil profile

development; surface texture; slope; and other soil and landscape conditions, including drainage, alkalinity, fertility, acidity, erosion, and microrelief. A score between zero and 100 percent is determined for each factor, and then the scores are multiplied together to generate an index rating.

3.2.1.3 Local

Imperial County General Plan Agricultural Element

In recognition of the singular importance of agricultural production to the County, the Agricultural Element of the County's General Plan was developed to demonstrate the long-term commitment of the County to fully promote, manage, use, develop and protect agriculture. The Agricultural Element provides guidance to the County, as well as prospective developers of agricultural and non-agricultural land. The Agricultural Element and its implementing County Ordinances provide guidelines for development in agricultural areas, thereby providing policies and objectives that are intended to guide activities and operations in these areas.

Several important trends/issues related to future agricultural production in the County are addressed in the Agricultural Element and summarized as follows:

- **The Loss of Important Farmland to Urban and Other Uses:** As urbanization and population increase in the County, it is inevitable that there would be losses of some existing important farmland. Urbanization is already causing losses to agricultural lands around El Centro. The County's overall economy is expected to be dependent upon the agriculture industry for the foreseeable future, and as such, special consideration is given to all agricultural land in the County. Permanent conversion of significant amounts of important farmland to non-agricultural uses will negatively impact the local economy and the County's ability to provide important agricultural products to the nation and beyond (Imperial County 2015a).

- **Leapfrogging Patterns of Non-Agricultural Developments in Agricultural Areas:** Leapfrogging or "checkerboard" patterns of development occur when new subdivisions and other land uses are constructed in the midst of agricultural land near a city or rural community. Agricultural fields typically become bounded by new residential or urban land uses, and often become isolated as they are cut off from existing farmland. Leapfrogging has increased in the past few years and is a major concern of farmers, as the isolation or stranding of fields leads to problems with agricultural operations, including irrigation, the application of pesticides, tractor access, and other agricultural activities. According to the County and the agricultural community, leapfrogging disrupts agricultural operations and reduces agricultural productivity significantly more than would be the case by expanding out from existing nonagricultural uses (Imperial County 2015a).

Other issues of concern noted in the Agricultural Element include:

- Difficulty of cultivating crops and raising livestock near urban development
- Water conservation and water transfer programs
- Agricultural production and salinity/selenium runoff
- Agricultural chemicals and environmental issues
- Regulations on agricultural operations
- Agricultural operations and the general public
- Agricultural packaging and processing
- White fly infestation
- Decline of cattle and dairy industries
- Special needs and difficulties of the aquaculture industry

The Agricultural Element also includes goals and objectives that provide direction for private development, as well as government actions and programs, related to agricultural land use and decision-making. Applicable goals and objectives are provided below.

Preservation of Important Farmland

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.

Objective 1.1: Maintain existing agricultural land uses outside of urbanizing areas and allow only those land uses in agricultural areas that are compatible with agricultural activities.

Objective 1.2: Encourage the continuation of irrigation agriculture on Important Farmland.

Objective 1.3: Conserve Important Farmland for continued farm related (nonurban) use and development while ensuring its proper management and use.

Objective 1.4: Discourage the location of development adjacent to productive agricultural lands.

Objective 1.5: Direct development to less valuable farmland (i.e., Unique Farmland and Farmland of Local Importance rather than Prime Farmland or Farmland of Statewide Importance) when conversion of agricultural land is justified.

Objective 1.8: Allow conversion of agricultural land to non-agricultural uses including renewable energy only where a clear and immediate need can be demonstrated, based on economic benefits, population projections and lack of other available land (including land within incorporated cities) for such nonagricultural uses. Such conversion shall also be allowed only where such uses have been identified for non-agricultural use in a city general plan or the County General Plan and are supported by a study to show a lack of alternative sites.

Objective 1.9: Preserve major areas of Class II and III soils which are currently nonirrigated but which offer significant potential when water is made available.

Development Patterns and Locations on Agricultural Land

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 areas.

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.

Objective 2.3: Maintain agricultural lands in parcel size configurations that help assure that viable farming units are retained.

Objective 2.4: Discourage the parcelization of large holdings.

Objective 2.6: Discourage the development of new residential or other nonagricultural areas outside of city "spheres of influence" unless designated for non-agricultural use on the County General Plan, or for necessary public facilities.

Agricultural and Non-Agricultural Land Use Relations

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.

> **Objective 3.5:** As a general rule, utilize transitional land uses around urban areas as buffers from agricultural uses. Such buffers may include rural residential uses, industrial uses, recreation areas, roads, canals, and open space areas.
>
> **Objective 3.8:** Renewable energy projects will be allowed within the RE Overlay Zone and mitigation for agricultural impacts have been identified and addressed.

A detailed consistency analysis of the Agricultural Element is included Section 4.11, Land Use, providing an evaluation of the Project's consistency with the applicable goals and objectives related to agricultural uses in the County.

3.2.2 Environmental Setting

3.2.2.1 Regional

Agriculture has been the single most important economic activity of the County throughout the 1900s and is expected to play a major economic role in the foreseeable future (Imperial County 2015a). In addition, agriculture is the County's largest source of income and employment, and the County's agriculture industry is a major producer and supplier of high-quality plant and animal foods and non-food products. According to the Imperial County Agricultural Commissioner (ICAC), in 2018, 537,192 acres were harvested, with a gross value of approximately $2.23 billion. Cattle is the largest production category by dollar value, followed by field crops, vegetable and melon crops, fruit and nut crops, seed and nursery crops, and apiary products (ICAC, 2018).

Surrounding Area

Much of the land base in the vicinity of the Project area is considered productive farmland where irrigation water is available. Farming operations in this area generally consist of medium to large-scale crop production with related operational facilities. Crops generally cultivated in the area may include alfalfa, barley, and/or Bermuda grass in any given year. Row and vegetable crops, such as corn, melons, and wheat, are also prominent in the area. In addition to productive farmland, there are a number of PV solar and other industrial-scale renewable energy facilities, as well as open space areas near the Project Site.

Project Site

Most of the Project Site comprises fallow agricultural lands, which have not been actively farmed nor irrigated for over 15 years. The Project Site does not currently have direct access from a public street but would be developed adjacent to other agricultural uses. It would also be adjacent to other renewable energy projects, such as the Campo Verde solar facility located immediately north of the Project Site, as well as other approved, but not yet constructed PV solar facilities in the Project vicinity and southern Imperial County. According to the Important Farmland maps (California DOC 2016a), the Project Site contains land which is mapped as Farmland of Local Importance. However, it does not contain other Farmland, such as Prime Farmland, Farmland of Statewide Importance or Unique Farmland. Although the Project Site contains 101.9 acres of Class I-II soils, as defined by the FMMP, it has not been in agricultural use or irrigated in

over 15 years and the Storie Index total rating is 44.7 (RECON Environmental 2021). As such, this would not meet the minimum qualifications to be considered Prime Farmland.

3.2.3 Environmental Impacts

3.2.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA guidelines. The Project would result in a significant impact to agriculture and forestry resources if it would result in any of the following:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Involve other changes in the existing environment which, due to their location or nature, would result in conversion of Farmland, to non-agriculture use or conservation of forest land to non-forest use?

3.2.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (Appendix A), since they were determined to result in less than significant or no impact, as briefly discussed in Chapter 7:

- Would the project conflict with existing zoning for, or cause rezoning of, 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))
- Would the project result in the loss of forest land or conversion of forest land to non-forest use

3.2.3.3 Methodology

The Project's impacts on Prime Farmland, Unique Farmland, and Farmland of Statewide Importance were evaluated through the use of the Land Evaluation and Site Assessment (LESA) model. The LESA model provides an analytical approach for rating the relative quality of land resources based on specific measurable features. Factors considered by the LESA model include soils, site acreage, water availability, and surrounding land uses. The LESA model worksheets are provided in Appendix C.1 The EIA, JIA, and FIA, as provided in C.2, is also considered in the consistency determination with Objective 1.8 of the General Plan. In addition, other resources, such as the County General Plan, were also reviewed to provide context of existing and historical agricultural production.

3.2.3.4 Project Impacts and Mitigation Measures

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Construction

Construction of the Project would result in conversion of approximately 148 acres of agricultural land, identified as Farmland of Local Importance, to a non-agricultural use. The Project Site was historically used for agricultural production but has been fallow and unused for over 15 years, due to lack of vehicular access and lack of irrigation. Specifically, the Project proposes to obtain a General Plan Land Use Amendment from Agriculture to Industry, and Zone Change from A-3 to M-2, in order to accommodate the Project. Construction impacts to the Project Site would include grading activities and the installation of structures, infrastructure, and other components that would alter the current land use and type. Project-related construction impacts to Farmland are considered long-term, as the Project Site would retain its M-2 zoning at the end of the Project lifespan and expiration of the Project's CUP. However, with implementation of MM AG-1, which would require the Project Applicant to minimize the impacts associated with the permanent loss of valuable Farmland through either provision of an agricultural conservation easement, payment into the County agricultural fee program, or entering into a public benefit agreement, impacts would be reduced to less than significant levels.

Operation

California Land Evaluation and Site Assessment Model

The California LESA model is intended to provide an optional methodology to ensure significant effects of the environment of agricultural land conversions are quantitatively and consistently considered. The model provides an approach for rating the relative quality of land resources using a point-base evaluation composed of six different factors, each separately rated on a 100-point scale. Land Evaluation factors are based upon soil resource quality including Land Capability Classification and Storie Index, while Site Assessment factors are evaluated based on a project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Each factor has relative weights that are combined into one numeric score. That score is evaluated against the scoring thresholds provided in the LESA Model Instruction Manual and Table 3.2-1. The Project's LESA model score is used to make a determination regarding the potential significance of conversion of agricultural lands to non-agricultural uses (RECON Environmental 2021).

Table 3.2-1 California Land Evaluation and Site Assessment (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 sub-scores are each greater than or equal to 20 points
60 to 79 Points	Considered significant unless either the LE or SA sub-score is less than 20 points
80 to 100 Points	Considered significant

Source: DOC 2004.

The Project Site was evaluated using the LESA Model to rate the quality and availability of agricultural resources and to identify whether the Project would meet the threshold criteria as having a significant impact to agricultural resources under the CEQA Guidelines. For the Project, the Land Evaluation subscore is 27.2 and the Site Assessment score is 30.3, as demonstrated in Table 3.2-2, which shows the breakdown of individual factor scores.

Table 3.2-2 California Land Evaluation and Site Assessment Model Scoring Results for the Project Site

Category	Factor	Factor Score	Factor Weight	Weighted Factor Score
Land Evaluation	Land Capability Class	64.2	0.25	16.1
	Storie Index	44.7	0.25	11.2
Subtotal				**27.2**
Site Assessment	Project Size	100	0.15	15
	Water Resource Availability	100	0.15	15
	Surrounding Agricultural Land	0	0.15	0
	Protected Resource Land	0	0.05	2.0
Subtotal				**32.0**
Total Land Evaluation and Site Assessment Score				**59.2**

Based on this evaluation, the final LESA score for the Project Site is 59.2. A final LESA score between 40 to 59 points is considered significant if both the Land Evaluation and Site Assessment subscores are greater than or equal to 20 points. In the case of the Project, both the Land Evaluation and Site Assessment scores are greater than 20 points. As such, the Project is considered to have a significant impact on agricultural resources. However, incorporation of MM AG-1, which would require the Project Applicant to minimize the impacts associated with the permanent loss of valuable Farmland through either provision of an agricultural conservation easement, payment into the County agricultural fee program, or entering into a public benefit agreement, and would reduce impacts to a less than significant level.

Decommissioning

At the end of the 40-year Project CUP agreement, decommissioning activities would be undertaken. Following expiration of the CUP, reissuance of the CUP would be possible by the Applicant or successor-in-interest. Decommissioning activities of the Project would apply to those portions of the Project that involve operational components including, but not limited to, electrical switching station, substation, battery modules, inverters, transformers, and photovoltaic (PV) modules. All operational components that are no longer in use and cannot be repurposed would be disassembled and removed from the site. Once all decommissioning activities are completed, the Project Site would retain its M-2 zoning. Decommissioning impacts associated with the conversion of Farmland of Local Importance to a non-agricultural use would be considered less than significant with incorporation of MM AG-1.

Mitigation Measures

MM AG-1: Payment of Agricultural and Other Benefit Fees

One of the following options included below is to be implemented prior to the issuance of a grading permit or building permit for the Project:

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 Department of

Conservation 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 shall 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 2012-005; 2) the Agricultural Benefit Fee 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 specified in the Development Agreement, including addressing the mitigation of agricultural job loss on the local economy.

Level of Significance After Mitigation

With the implementation of MM AG-1, the Project Applicant would be required to minimize the impact associated with the permanent loss of valuable Farmland through either provision of an agricultural conservation easement, payment into the County agricultural fee program, or entering into a public benefit agreement. Implementation of Mitigation Measure MM AG-1 would reduce potential impacts on Farmland conversion to less-than-significant levels.

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

According to the 2016-2017 Williamson Act Report produced by the California Department of Conservation's Division of Land Resource Protection, the Project Site within Imperial County is not located on Williamson Act contracted Land (DOC 2018). Therefore, construction, operation, and decommissioning of the Project would not conflict with a Williamson Act and no impact would occur.

Construction

Construction of the Project would conflict with existing zoning for agricultural use. The Project Site currently has a general plan land use designation of Agriculture with a corresponding zoning of A-3. The Project includes the rezoning of the Project Site from A-3 to M-2 to accommodate the proposed battery storage use of the Site. The Project Site has remained unused for over 15 years, due to the lack of vehicular access and irrigation. Construction of the Project would yield other economical and energy benefits that would outweigh the harm caused by the loss of this agricultural use.

Objective 1.8 of the County's Agricultural Element would allow conversion of agricultural land to non-agricultural uses, including renewable energy, only where a clear and immediate need can be demonstrated, based on economic benefits, population projections and lack of other available land (including land within incorporated cities) for such nonagricultural uses. As such, evaluations were conducted to demonstrate the economic benefits of the Project and are discussed below.

Employment or Jobs Impact Analysis

A JIA was prepared for the Project, in order to evaluate consistency with Objective 1.8 of the County General Plan Agricultural Element. The JIA calculated the total amount of construction jobs that would be specifically attributed to the construction of the Project. The JIA determined that the Project, at full build-out, would generate the equivalent of 1,549 full-time one-year equivalent jobs of the construction period. These are considered as new jobs with a significant economic benefit, as the Project Site has been unused for agriculture or any other uses for over 15 years (Development Management Group 2020). Other economic benefits are discussed below, in the evaluation of operational impacts.

As such, based on the JIA, the benefits of the Project due to construction-related activities outweigh the loss due to the conversion of agricultural uses, and this impact would be less than significant. Furthermore, the Project would implement MM AG-1, which would further reduce potential impacts caused by the rezoning of agricultural land to non-agricultural uses. Therefore, construction impacts related to a conflict with existing agricultural zoning would be less than significant with implementation of mitigation.

Operation

Operation of the Project would conflict with the existing zoning for agricultural use, due to the change in land use designation and zoning, as described previously. Although operation of the Project would conflict with current zoning, it provides other economic and energy benefits, which justify the loss of this agricultural use, as discussed below.

Employment or Jobs Impact Analysis

Based on the JIA, it is estimated that over the lifespan of the Project, at full build out, 20 entirely new full-time equivalent permanent jobs would be generated as a result of Project operation (Development Management Group 2020). As such, based on the JIA, the Project is consistent with Objective 1.8 of the County General Plan Agricultural Element.

Economic Impact Analysis

An EIA was prepared for the Project, in order to evaluate consistency with Objective 1.8 of the County General Plan Agricultural Element. The EIA calculates the predicted impact to a community or region as a result of a project or activity. It gives an understanding of the quantity of dollars that will flow through an economy as a result of a project. In the case of an energy battery storage project this includes such items as labor, construction materials, local purchases, and operations. This includes all known direct (and indirect) expenditures as a result of both construction and operation for the projected life of a project. The economic benefits to the County and region, due to Project operation, would be approximately $165 million over the lifespan of the Project, at full build-out, not including governmental revenues from taxes and fees (Development Management Group 2020). As such, based on the EIA, the Project is consistent with Objective 1.8 of the County General Plan Agricultural Element.

Fiscal Impact Analysis

An FIA was prepared for the Project, in order to complete the assessment of economic benefits attributed to the Project and evaluate consistency with Objective 1.8 of the County General Plan Agricultural Element. The FIA calculates the amount of revenue that a governmental agency is expected to receive and calculates the projected costs they will incur to provide appropriate services to both the Project and the additional population/employment generated as a result of the Project. A comparison is undertaken to determine if the Project would generate either economic benefit or cost to the government agency.

Operation of the Project would generate approximately $81.53 million in net County tax revenue during the lifespan of the Project, at full build-out. This is based on an estimate of approximately $34.77 million in sales tax revenue and $46.77 in net property tax revenue. The cost to the County to provide services to the Project, at full build-out, and its employees over the lifespan of the Project would be approximately $22.46 million, resulting in approximately $59.08 million in surplus revenue to the County over the lifespan of the Project (Development Management Group 2020). As such, based on the FIA, the Project is consistent with Objective 1.8 of the County General Plan Agricultural Element.

Based on all of the above and the totality of the data presented in the JIA, EIA and FIA, the Project has demonstrated its economic benefits, in conformance with Objective 1.8 of the County General Plan Agricultural Element. Furthermore, the Project would implement MM AG-1, which would further reduce potential impacts caused by the rezoning of agricultural land to non-agricultural uses. Therefore, operational impacts related to a conflict with existing agricultural zoning would be less than significant with implementation of mitigation.

Decommissioning

At the end of the 40-year Project CUP agreement, decommissioning activities would be undertaken, as discussed above. Following expiration of the CUP, reissuance of the CUP would be possible by the Applicant or successor-in-interest. Decommissioning activities of the Project would apply to those portions of the Project that involve operational components including, but not limited to, electrical switching station, substation, battery modules, inverters, transformers, and photovoltaic (PV) modules. All operational components that are no longer in use and cannot be repurposed would be disassembled and removed from the site. Once all decommissioning activities are completed, the Project Site would retain its M-2 zoning. Impacts associated with a conflict with existing zoning for agricultural uses would be considered less than significant following completion of decommissioning, with implementation of mitigation.

Mitigation Measures

MM AG-1 would be applicable.

Level of Significance After Mitigation

Implementation of Mitigation Measure AG-1 would reduce potential impacts on zoning to less-than-significant levels.

c) Would the Project involve other changes in the existing environment which, due to their location or nature, would result in conversion of Farmland, to non-agriculture use or conservation of forest land to non-forest use?

Construction

As discussed in Thresholds a) and b) above, the Project would convert land currently designated as Agricultural to Industry. Construction of the Project would result in the conversion of Farmland to a non-agricultural use. Other than the Project Site, no other agricultural land would be converted to a non-agricultural use. Due to the location of the Project Site, no “leapfrogging” or “spot zoning” of agricultural land would occur, as the Project Site is not located in the middle of other agricultural areas which would be cut off or otherwise negatively impacted by development of the Project.

As described above, per Objective 1.8 of the County General Plan Agricultural Element, agricultural land may be converted to non-agricultural uses including renewable energy only where a clear and immediate

need can be demonstrated based on economic benefits, population projections and lack of other available land (including land within incorporated cities) for such non-agricultural uses. As demonstrated by the EIA, JIA, and FIA, rezoning the land to be utilized for the Project would show a significant overall fiscal benefit (Development Management Group 2020).

As there is currently no legal accessibility to the Project Site, the Project would include the construction of access roads on the north and south side of the Westside Main Canal on private land and a permanent clear-span County/IID specified bridge over the canal. Construction would temporarily impact traffic and movement on adjoining roads within the area. However, Project construction would not significantly affect other agricultural operations in the area, as the Project Site is adjacent to a solar PV facility and is not surrounded by other agricultural uses which could be affected by it. Based on the above, construction impacts related to the conversion of Farmland to a non-agriculture use would be less than significant. Furthermore, implementation of MM AG-1 would further reduce potential impacts to a less than significant level.

Operation

Existing nuisances such as dust, noise, and odors from existing agricultural use would not impact the operations of the Project due to lack of sensitive receptors (e.g., schools or residences) on or near the Project Site. 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 in force during Project construction and operation. Based on these provisions, the Project is not anticipated to adversely impact the operation of an adjacent agriculture use.

In addition, based on the evaluations presented in Thresholds a) and b) above, the economic benefits of the Project would outweigh the loss caused by the conversion of Farmland, in accordance with Objective 1.8 of the County General Plan Agricultural Element. Based on the above, operational impacts related to the conversion of Farmland to a non-agriculture use would be less than significant. Furthermore, implementation of MM AG-1 would further reduce potential impacts to a less than significant level.

Decommissioning

At the end of the Project's lifespan, the Project components would be disassembled and removed from the Project Site. All battery module components, hazardous materials, and solar PV panels would be disassembled and transported off-site for proper disposal. Although the Project components would be removed from the Project Site, the Project Site itself would not revert back to is Agriculture land use designation and pre-Project condition. As mentioned above, the Project would develop new access roads which may have the potential to attract or encourage new development of adjacent farmlands. All structural and infrastructure improvements included as part of the Project (e.g., Westside Main Canal bridge, access roads, O&M building, and buildings housing battery energy storage systems) would remain on-site after decommissioning of the Project. The Project Site would retain its Industry land use designation and M-2 zoning.

In addition, based on the evaluations presented in Thresholds a) and b) above, the economic benefits of the Project would outweigh the harm caused by the conversion of Farmland, in accordance with Objective 1.8 of the County General Plan Agricultural Element. Based on the above, decommissioning impacts related to the conversion of Farmland to a non-agriculture use would be less than significant. Furthermore, implementation of MM AG-1 would further reduce potential decommissioning impacts to a less than significant level.

Mitigation Measures

MM AG-1 would be applicable.

Level of Significance After Mitigation

Implementation of Mitigation Measure AG-1 would reduce potential impacts on converting land use to less-than-significant levels.

3.3 AIR QUALITY

This section provides an analysis of air quality impacts that would result from the Project. Included in this section is the overall regulatory framework for air quality management in California and the region, a description of the existing air quality conditions in the project vicinity, and an analysis of the impacts related to air quality. Where applicable, mitigation measures are included to reduce otherwise potentially significant impacts. The information provided in this section is based on the information provided in the Air Quality Analysis, prepared by RECON Environmental, Inc. (March 2021) and is included in Appendix D of this EIR.

3.3.1 Regulatory Framework

Federal, state, and local agencies have set ambient air quality standards for certain air pollutants through statutory requirements and have established regulations and various plans and policies to maintain and improve air quality, as described below.

3.3.1.1 Federal

The federal Clean Air Act (CAA), which was passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The CAA delegates primary responsibility for clean air to the EPA. The EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, the EPA has established the NAAQS for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. Ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM_{10} – respirable particles less than 10 microns in diameter, and $PM_{2.5}$ – fine particles less than 2.5 microns in diameter) are the six criteria air pollutants. Ozone is a secondary pollutant, nitrogen oxides (NO_X) and volatile organic compounds (VOCs) are of particular interest as they are precursors to ozone formation. Descriptions of criteria pollutants and associated health effects are provided below.

The CAA requires 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 CAA also 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. The NAAQS are divided into primary and secondary standards; the primary standards are set to protect human health within an adequate margin of safety, and the secondary standards are set to protect environmental values, such as plant and animal life. The standards for all criteria pollutants are presented in Table 3.3-1.

Ozone

Ozone is not usually emitted directly into the air but is created at ground level by a chemical reaction between NO_X and VOC, or ROG, in the presence of sunlight. For the most part, VOC and ROG are synonymous. Both are those portions of organic gases (i.e., hydrocarbons) that are reactive enough to be a concern with the formation of ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant.

Table 3.3-1 State and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b] Primary[c]	National Standards[b] Secondary[d]
Ozone (O3)	1 hour 8 hours	0.09 ppm 0.070 ppm	— 0.070 ppm	— 0.070 ppm
Carbon monoxide (CO)	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	— —
Nitrogen dioxide (NO2)	1 hour Annual Arithmetic Mean	0.18 ppm 0.030 ppm	0.100 ppm [e] 0.053 ppm	— 0.053 ppm
Sulfur dioxide (SO2)	1 hour 3 hours 24 hours Annual Arithmetic Mean	0.25 ppm — 0.040 ppm —	0.075 ppm [f] — 0.014 ppm 0.030 ppm	— 0.5 ppm — —
Particulate matter less than 10 microns (PM10)	24 hours Annual Arithmetic Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 —	150 µg/m^3 —
Particulate matter less than 2.5 microns (PM2.5)	24 hours Annual Arithmetic Mean	— 12 µg/m^3	35 µg/m^3 12 µg/m^3	35 µg/m^3 15 µg/m^3
Lead (Pb) [g]	30-day Average Calendar Quarter Rolling 3-month Average	1.5 µg/m^3 — —	— 1.5 µg/m^3 0.15 µg/m^3	— 1.5 µg/m^3 0.15 µg/m^3
Visibility reducing particles (VRP) [g]	8 hours	[h]	—	—
Sulfates	24 hours	25 µg/m^3	—	—
Hydrogen sulfide (H2S)	1 hour	0.03 ppm	—	—
Vinyl chloride	24 hours	0.01 ppm	—	—

Notes:
ppm = parts per million; µg/m^3 = micrograms per cubic meter
— = No standard has been adopted for this averaging time
a. California Ambient Air Quality Standards for ozone, CO (except 8-hour Lake Tahoe), sulfur dioxide (SO_2; 1- and 24-hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and VRP), are values that are not to be exceeded. All others are not to be equaled or exceeded.
b. National Ambient Air Quality Standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone 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 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
c. Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
d. Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
e. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.100 ppm.
f. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.075 ppm.
g. CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
h. Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.
Source: CARB 2016

Breathing ozone can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. Ground-level ozone can also cause substantial damage to vegetation and other physical materials. Because NO_X and ROG are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_X and ROG emissions.

Nitrogen Oxides

NO_X is the generic term for a group of highly reactive gases that contain nitrogen and oxygen. While most NO_X is colorless and odorless, concentrations of NO_2 can often be seen as a reddish-brown layer over many urban areas. NO_X forms when carbon-based fuel is burned at high temperatures as in a combustion process.

NO_X reacts with other pollutants to form ground-level ozone, nitrate particles, acid aerosols, and NO_2, which can cause respiratory problems. NO_X and the pollutants formed from NO_X can be transported over long distances by prevailing winds. Therefore, controlling NO_X is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Current scientific evidence links short-term NO_2 exposures ranging from 30 minutes to 24 hours with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between breathing elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma.

In the County, on-road mobile sources are the largest NO_X contributor representing approximately 84 percent of all NO_X emissions. Diesel-fueled heavy-duty trucks and light duty passenger vehicles contribute approximately 49 percent, and 19 percent of on-road mobile source NO_X emissions, respectively (CARB 2018).

Carbon Monoxide

CO is a colorless, odorless gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO levels tend to be highest during winter and periods of low wind speed when meteorological conditions favor the accumulation of pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrate CO.

CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and creates a solid bond to hemoglobin, not allowing it to form a loose bond with CO_2, which is essential to the CO_2/oxygen exchange to occur. Therefore, this firm binding reduces available oxygen in the blood and oxygen delivery to the body's organs and tissues.

The largest sources of CO emissions in the County are from mobile sources representing approximately 75 percent of total CO emissions. Of mobile sources, light duty passenger cars and aircraft contribute approximately 25 percent and 27 percent of CO emissions, respectively (CARB 2018).

Reactive Organic Gases

ROGs or VOCs are defined as any compound of carbon, excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions. There are no state or national ambient air quality standards for ROG because they are not classified as criteria pollutants. However, they are regulated because a reduction in ROG emissions

reduces certain chemical reactions that contribute to the formation of ozone. ROGs are also transformed into organic aerosols in the atmosphere, which contribute to PM_{10} and lower visibility. In addition, some compounds that make up ROG are also toxic, like the carcinogen benzene, and are often evaluated as part of a toxic risk assessment. ROG emissions primarily result from incomplete fuel combustion and the evaporation of chemical solvents and fuels.

In the County, areawide and mobile sources contribute 49 percent and 44 percent of ROG emissions, respectively. Of areawide source ROG emissions, solvent evaporation and farming operations contribute 52 percent and 35 percent, respectively. Aircraft contribute 38 percent of mobile source ROG emissions (CARB 2018).

Particulate Matter

PM is a mixture of microscopic solids and liquid droplets suspended in air. This pollution is made up of many components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores).

The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter, or PM_{10}, may cause negative health effects, because they can get deep into lungs and the bloodstream. Being even smaller, $PM_{2.5}$ will travel further into the lungs. Exposure to such particles can affect both lungs and heart. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including the following:

- premature death in people with heart or lung disease,
- nonfatal heart attacks,
- irregular heartbeat,
- aggravated asthma,
- decreased lung function, and
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

Areawide sources are the largest contributor of PM_{10} and $PM_{2.5}$ emissions in the County. Areawide sources represent 98 percent of the County's PM_{10} emissions, with fugitive windblown dust and unpaved road dust contributing 76 percent and 19 percent of areawide emissions, respectively. This trend continues for $PM_{2.5}$ emissions, with areawide sources contributing 94 percent of County emissions, and fugitive windblown dust and unpaved road dust contributing 78 percent and 14 percent, respectively (CARB 2018).

Sulfur Dioxide

SO_2 is one of a group of highly reactive gasses known as sulfur oxides. SO_2 is a colorless, irritating gas with a rotten egg smell formed primarily by the combustion of sulfur-containing fossil fuels. Nationwide, the largest sources of SO_2 emissions are from fossil fuel combustion at power plants and other industrial facilities.

Current scientific evidence links short-term exposures to SO_2 ranging from 5 minutes to 24 hours with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly serious for asthmatics at elevated ventilation rates (e.g., while exercising or playing). Sulfur oxides (SO_X) can also react with other compounds in the atmosphere to form small particles. These particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death.

The largest contributors of SO_X emissions in the County are areawide and mobile sources which contribute approximately 22 percent and 76 percent of emissions, respectively. Managed burning and disposal

contribute 96 percent of SO_X emissions for areawide sources and aircraft contribute 76 percent of mobile emissions (CARB 2018).

Lead

Pb is a metal that is a natural constituent of air, water, and the biosphere. The health effects of Pb poisoning include loss of appetite, weakness, apathy, and miscarriage. It can also cause lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract. Gasoline-powered automobile engines were a major source of airborne Pb by the use of leaded fuels. The use of leaded fuel has been mostly phased out with the result that ambient concentrations of lead have dropped dramatically.

3.3.1.2 State

A SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national standards. The SIP for California is administered by California Air Resources Board (CARB), which has overall responsibility for statewide air quality maintenance and air pollution prevention. CARB also administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the California Clean Air Act (CCAA). The 10-state air pollutants include the six national standards as well as the following: visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The national and state ambient air quality standards are summarized in Table 3.3-1.

CARB and local air districts are responsible for achieving CAAQS, which are to be achieved through district-level air quality management plans (AQMPs) that would be incorporated into the SIP. In California, the EPA has delegated authority to prepare SIPs to CARB, which in turn, has delegated that authority to individual air districts.

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

Attainment Status

Depending on whether or not the applicable ambient air quality standards (AAQS) are met or exceeded, the air basin is classified as being in “attainment” or “nonattainment”. The EPA and CARB determine the air quality attainment status of designated areas by comparing ambient air quality measurements from state or local ambient air monitoring stations with the NAAQS and CAAQS. These designations are determined on a pollutant-by-pollutant basis. Consistent with federal requirements, an unclassifiable/ unclassified designation is treated as an attainment designation. Table 3.3-2 presents the federal and state attainment status for the Project area. As shown in Table 3.3-2, the County is currently designated as nonattainment for ozone and PM_{10} under state standards. Under federal standards, the County is nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The area is currently in attainment or unclassified status for all other AAQS.

California In-Use Off-Road Diesel Fueled Fleet Regulations

The California In-Use Off-Road Diesel-Fueled Fleets Regulations were approved by CARB in July 2007, and subsequent major amendments were incorporated in December 2011. The regulations are intended to reduce diesel-exhaust and NO_X emissions from in-use off-road heavy-duty diesel vehicles in California. The regulation requires that any operator of diesel-powered off-road vehicles with 25-horsepower or greater engines meet specific fleet average targets. CARB maintains schedules for small, medium, and large equipment fleets that require equipment retrofits or replacements over time to gradually bring the existing

equipment up to standard. As of January 2018, all newly purchased equipment for medium and large equipment fleets are required to meet Tier 3 or higher engine standards.

Table 3.3-2 State and Federal Designations

Pollutant	Federal Designation	State Designation
Ozone (O_3)	Marginal Nonattainment[a]	Nonattainment
Particulate Matter 10 microns or less (PM_{10})	Serious Nonattainment	Nonattainment
Particulate Matter 2.5 microns or less ($PM_{2.5}$)	Moderate Nonattainment – Partial[b]	Attainment
Carbon Monoxide (CO)	Unclassified/ Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/ Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Unclassified/ Attainment	Attainment
Hydrogen Sulfide (H_2S)	No Federal Standards	Unclassified
Sulfates		Attainment
Visibility Reducing Particles		Unclassified

Notes:
a) The County is marginal nonattainment for the 2015 ozone standard and moderate attainment for the 2008 standard.
b) The County is moderate nonattainment for both the 2012 and 2008 $PM_{2.5}$ NAAQS standard. Only the Imperial Valley portion of the County is nonattainment for $PM_{2.5}$ NAAQS.
Source: EPA 2020, CARB 2019a

Toxic Air Contaminants

California regulates toxic air containments (TACs) primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 – Connelly). In the early 1980s, the CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Toxic Air Contaminant Identification and Control Act of 1983 (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 diesel particulate matter (DPM) emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles (CARB 2000). The goal of the plan is to reduce diesel PM_{10} (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy- duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.). During the control measure phase, specific statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles will be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions. The proposed Project would be required to comply with applicable diesel control measures.

In 2004, CARB initially approved an airborne toxic control measure (ATCM) to implement idling restrictions of diesel-fueled commercial motor vehicles operating in California (13 CCR, Section 2485) (CARB 2005). The ATCM applies to diesel-fueled commercial vehicles with a gross vehicle rating greater than 10,000

pounds. The ATCM would limit idling times of these vehicle's primary engine to no more than five minutes at any location. This measure would help reduce exposure to diesel particulate matter and other diesel exhaust pollutants.

Assembly Bill 617

In July 2017 Governor Brown signed AB 617 which requires reduction in air pollution and associated health impacts in highly impacted communities. AB 617 provides a community-focused action framework to improve air quality and reduce exposure to criteria air pollutants and TACs in the communities most impacted by air pollution. Currently, 13 communities have been selected to participate. AB 617 includes a variety of strategies to address air quality issues in impacted communities, including community-level monitoring, uniform emission reporting across the State, stronger regulation of pollution sources, and incentives for both mobile and stationary sources.

3.3.1.3 Local

The Imperial County Air Pollution Control District (ICAPCD) is the local air district 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. The air district was formed by the Air Pollution Control Act of 1947.

The ICAPCD adopted its CEQA Air Quality Handbook: Guidelines for the Implementation of the California Environmental Quality Act of 1970 in 2007 and amended the handbook in December 2017 (ICAPCD 2017a). The ICAPCD CEQA Air Quality Handbook provides guidance on how to determine the significance of impacts, including air pollutant emissions, related to the development of residential, commercial, and industrial projects. Where impacts are determined to be significant, the ICAPCD CEQA Air Quality Handbook provides guidance to mitigate adverse impacts to air quality from development projects. The ICAPCD is the agency principally responsible for comprehensive air pollution control in the region.

Air Quality Plans

The ICAPCD has developed plans and strategies to achieve attainment for AAQS. The latest plans include the following:

- Imperial County Plan for PM_{10} (2009)
- Annual $PM_{2.5}$ SIP (2012)
- Plan for 2006 24-hour $PM_{2.5}$ for moderate nonattainment area (2013)
- Plan for 2008 8-hour Ozone standard (2017)
- Redesignation Request and Maintenance Plan for PM_{10} (2018)

The following ICAPCD rules are applicable to the Project:

- **Rule 106: Abatement.** If the ICAPCD determines that any person is in violation of the Rules and Regulations for limiting the discharge of air contaminants into the atmosphere, the ICAPCD may issue an order for abatement.

- **Rule 107: Land Use.** The Air Pollution Control Officer has the responsibility to protect public health and property from the damaging effects of air pollution and will review and advise the appropriate land use authorities on all new construction or changes in land use which could become a source of air pollution problems.

- **Rule 310: Operational Development Fee.** Provides the ICAPCD with a sound method for mitigating emissions produced from operations of new commercial and residential development

projects by requiring project proponents to pay fees based on the project's emissions, type, and size. The operational fees would assist in attaining the State and federal ambient air quality standards for PM_{10} and Ozone.

- **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 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.

Stationary Sources

- **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.

- **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.

General Plan

The County General Plan was adopted in March 2016. The Conservation and Open Space Element contains air quality objectives for obtaining a goal of improving air quality in the region, and it also included the policies and programs to be implemented to support the County's goal. Policies in the element included reducing fugitive dust emissions from unpaved roads, agricultural fields, and exposed Salton Sea lakebed; promoting alternative transportation programs; and working with the Imperial County Transportation Commission to reduce vehicle miles traveled Countywide.

3.3.2 Environmental Setting

3.3.2.1 Salton Sea Air Basin

The Project is located within the Salton Sea Air Basin (SSAB). The SSAB consists of all the County and a portion of Riverside County. Both the ICAPCD and SCAQMD have jurisdiction within the SSAB. The

ICAPCD has full jurisdiction within all the County and SCAQMD has jurisdiction within Riverside County. Ambient air quality is affected by the climate, topography, and the type and amount of pollutants emitted.

3.3.2.2 Climate and Topography

Climate conditions at the Project Site, like the rest of the County, are governed by the large-scale sinking and warming of air in the semi-permanent tropical high-pressure center of the Pacific Ocean. The high-pressure ridge blocks out most storms except in winter when it is weakest and farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal environs. Because of the barrier and weakened storms, the County experiences clear skies, extremely hot summers, mild winters, and little rainfall (ICAPCD 2017b). Winters are mild and dry with daily average temperatures ranging between 65- and 75-degrees Fahrenheit (°F). Summers are extremely hot with daily average temperatures ranging between 104°F and 115°F. The flat terrain and the strong temperature differentials created by intense solar heating result in moderate winds and deep thermal convection.

The combination of subsiding air, protective mountains, and distance from the ocean all combine to severely limit precipitation (ICAPCD 2017b). 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. 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. Based on meteorological data from the Imperial County Airport, the dominant wind direction throughout the year blows from west to east. Occasionally, the 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 (ICAPCD 2017b).

3.3.2.3 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest receptor is a single-family residence approximately 4,000 feet northeast from the Project Site boundary.

3.3.2.4 Existing Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and regionally. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by temperature inversions), and topography. The County experiences surface inversions almost every day of the year. Due to strong surface heating, these inversions are usually broken and allow pollutants to be more easily dispersed. In some circumstances, the presence of the Pacific high-pressure cell can cause the air to warm to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, can act as a nearly impenetrable lid to the vertical mixing of pollutants. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the build-up of pollutants. Highest and worst-case ozone levels are often associated with the presence of subsidence inversions (ICAPCD 2017b).

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by CARB or federal standards set by the EPA. The ICAPCD maintains five air quality

monitoring stations located throughout the region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels, and to gauge compliance with state and federal air quality standards. The nearest active monitoring station is the El Centro Monitoring Station located 9.6 miles northeast of the Project Site. The El Centro Monitoring Station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 3.3-3 provides a summary of measurements collected at the El Centro Monitoring Station for the years 2016 through 2018.

Table 3.3-3 Ambient Air Quality Summary

Pollutant	Averaging Time	Standard	2016	2017	2018
Ozone (O_3)	1 Hour	Days>State Standard (0.09ppm)	4	4	2
		Maximum Concentration (ppm)	0.108	0.110	0.102
	8 Hour	Days> State Standard (0.070 ppm)	11	17	15
		Days>Federal Standard (0.070)	11	17	14
		Maximum Concentration (ppm)	0.082	0.092	0.090
Nitrogen dioxide (NO_2)	1 Hour	Days>State Standard (0.180 ppm)	0	0	0
		Days>Federal Standard (0.100 ppm)	0	0	0
		Maximum Concentration (ppm)	0.051	0.049	0.034
	Annual	Maximum Concentration (ppm)	0.005	—	—
Particulate matter 10 microns or less (PM_{10})	24 hours	Measured Days>State Standard (50 µg/m^3)	—	—	—
		Calculated Days>State Standard (50 µg/m^3)	—	—	—
		Measured Days>Federal Standard (150 µg/m^3)	10	4	5
		Calculated Days>Federal Standard (150 µg/m^3)	10.0	4.0	5.1
		Maximum Concentration (µg/m^3)	284.9	268.5	253.0
	Annual	State Average (µg/m^3)	—	—	—
		Federal Average (µg/m^3)	45.0	41.3	46.9
Particulate matter 2.5 microns or less ($PM_{2.})_5$	24 hours	Days>Federal Standard (35.0 µg/m^3)	0	0	
		Maximum Concentration (µg/m^3)	31.3	23.2	22.4
	Annual	State Average (µg/m^3)	9.5	8.4	8.7
		Federal Average (µg/m^3)	9.4	8.4	8.6

Notes:
(—): indicates there was insufficient data available to determine the value.
Source: CARB 2020.

3.3.3 Environmental Impacts

3.3.3.1 Thresholds of Significance

The Impact analysis provided below is based on Appendix G of the CEQA guidelines. The Project would result in a significant impact to air quality if it would result in any of the following:

a) Would the project conflict with or obstruct implementation of the applicable air quality plan

b) 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.

c) Would the project expose sensitive receptors to substantial pollutant concentrations.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The ICAPCD has also established significance thresholds based on the State CEQA significance criteria. adopted guidelines for implementation of CEQA in its CEQA Air Quality Handbook (ICAPCD 2007, as updated December 12, 2017). The ICAPCD recommended thresholds of significance are discussed below. The thresholds are adopted for operation and construction emissions of criteria pollutants for residential, commercial, and industrial projects.

3.3.3.2 Issues Scoped Out as Part of the Initial Study

None of the thresholds of significance, as listed above, were eliminated for further analysis in the Initial Study (Appendix A).

Construction

The ICAPCD has established significance thresholds for construction-related emissions. These thresholds are presented in Table 3.3-4. The ICAPCD CEQA Handbook states that the approach to evaluating construction particulate matter 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, including those listed in Section 7.1 of the ICAPCD's Handbook, apply to those construction sites which are five acres or more for non-residential developments or 10 acres or more in size for residential developments that generate emissions above the levels listed in Table 3.3-4. The list of mitigation measures that would be implemented for the Project (derived from Section 7.1 of the ICAPCD CEQA Guidelines) are provided below.

Table 3.3-4 Imperial County Air Pollution Control District Daily Construction Emissions Thresholds

Pollutant	Daily Threshold (lb/day)
Reactive organic gases (ROG)	75
Nitrogen oxides (No_x)	100
Carbon monoxide (CO)	550
Particulate matter 10 microns or less (PM_{10})	150

Source: ICAPCD 2017b

Operations

ICAPCD has determined in its CEQA Air Quality Handbook that because the operational phase of a proposed project has the potential of creating lasting or long-term impacts on air quality, it is important that a proposed development evaluate the potential impacts carefully. Therefore, air quality analyses should

compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds listed in Table 3.3-5. This table also provides general guidelines for determining the significance of impacts and the recommended type of environmental analysis required based on the total emissions that are expected from the operational phase of a project.

As shown in the Table 3.3-5, projects with emissions of criteria pollutants below Tier I may potentially have an adverse impact on local air quality but will be required to develop an initial study to determine the level of significance of potential impact. Tier II projects with a potential to emit criteria pollutants above the thresholds of Tier I are considered to have a significant impact on regional and local air quality. Tier II projects are required to implement all standard mitigation measures, as well as identify and implement all feasible discretionary mitigation measures.

Table 3.3-5 Imperial County Air Pollution Control District Daily Operational Emissions Thresholds

Pollutant	Tier I	Tier II
Nitrogen oxides and reactive organic gases (NOx and ROG)	Less than 137 lbs/day	137 lbs/day and greater
Particulate matter 10 microns or less and sulfur oxides (PM_{10} and Sox)	Less than 150 lbs/day	150 lbs/day and greater
Carbon monoxide and particulate matter 2.5 microns or less (CO and $PM_{2.5}$)	Less than 550 lbs/day	550 lbs/day and greater
Level of significance	Less than significant	Significant Impact
Level of analysis	Initial Study	Comprehensive Air Quality Analysis
Environmental document	Negative Declaration	Mitigated Negative Declaration or Environmental Impact Report

Source: ICAPCD 2017a

3.3.3.3 Methodology

Construction and operation of the Project would result in criteria pollutant emissions. Emissions were calculated using the CalEEMod Version 2016.3.2. The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts including the SCAQMD.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use, using data collected from construction site surveys performed by the SCAQMD. Where available, parameters were modified to reflect Project-specific data.

Construction

The Project would be constructed in three to five phases over a 10-year period. Construction activities are anticipated to take approximately 32 months to complete the full Project build-out. Phase 1 of the Project would include construction of the common components such as roads, permanent clear-span bridge, O&M facilities, water connections and water mains, stormwater retention, switching station and Project substation, legal permanent vehicle access, as well as the first energy storage facility. The additional phases after Phase 1 would only construct energy storage facilities and construction activities

would be less intensive overall compared to Phase 1 and would require fewer construction equipment. Therefore, the emissions from Phase 1 would represent the worst-case daily emissions over the entire construction duration and this analysis evaluated Phase 1 emissions to determine the Project's impacts.

Construction emissions would be generated from the operation of off-road equipment worker and haul truck trips, fugitive dust from grading and soil handling activities, and fugitive dust from mobilization. The Project would implement the standard measures for fugitive PM_{10} control as described in the ICAPCD handbook. Details of the construction analysis and fugitive dust control measures are provided in Appendix D.

Off-road Equipment

CalEEMod calculates air quality emissions from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database, OFFROAD 2011. All equipment was assumed to meet CARB Tier 3 In-Use Off-Road Diesel Engine Standards.

Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from CARB's EMission FACtor model 2014 (EMFAC2014). Construction mobile emissions would be based on construction worker trips, vendor trips, and hauling trips. During construction activities, approximately 200 workers and 30 daily deliveries would be required. An average trip length was used to calculate total mobile emissions.

Fugitive Dust

Fugitive dust emissions would be emitted on-site from soil disturbing activities and vehicles traveling on on-site and off-site roads. Dust emissions were calculated using CalEEMod and standard dust control measures from the ICAPCD handbook would be implemented to minimize dust emissions. Details of measures to be implemented are included in Appendix D.

Operations

Operation of the Project would generate criteria pollutant emissions from mobile sources and landscaping equipment. The Project would also include emergency generators to supply auxiliary power to the facility during power outages. Generators would be periodically tested each year to maintain backup capabilities in the event of a grid emergency. All generators would be subject to ICAPCD review and permitting requirements.

Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from EMFAC2014. Operation of the Project at full build-out would require up to approximately 20 full-time employees depending upon the number of phases and type of energy storage facility constructed. The Project may require fewer full-time equivalent employees, but 20 was assumed to provide a conservative estimate. Assuming two one-way trips per employee, the Project would be anticipated to generate up to 40 trips per day from all maintenance and security personnel. A 20-mile trip length was modeled.

Energy Sources

CalEEMod calculated emissions associated with building electricity and natural gas usage. Energy sources are mostly associated with greenhouse gas emissions; however, there are also minimal criteria pollutant emissions from energy sources. Emissions were calculated using 2016 Title 24 Energy Code standards. This is conservative since the O&M building would be required to comply with more recent 2019 Title 24 Energy Code, which is more energy efficient than the previous version.

Area Sources

An area source is any non-permitted stationary source of emission. Common area sources include fireplaces, natural gas used in space and water heating, consumer products, architectural coatings, dust from farming operations, landscaping equipment, and small combustion equipment such as boilers or backup generators. The Project does not include measurable amounts of fireplace use, natural gas use, consumer products, architectural coatings, or other area sources. Landscaping equipment would be used during routine weed abatement and landscaping activities would occur on as needed basis. The Project Site is bounded by unpaved roads, agricultural uses, and solar generation facilities. As the Project is not adjacent to natural lands, landscaping maintenance for maintaining a fire-clearing zone would be minimal and would result in minimal emissions.

Emergency Generators

The Project would include emergency backup generators to supply auxiliary power to the facility during events in which the entire facility or portions of the facility are disconnected from the electrical grid. The Project would use a hybrid approach to emergency backup power supply. Rather than relying exclusively on backup generators, the hybrid approach involves dedicating a portion of the battery storage system capacity as a source of emergency backup power. The reserved battery storage capacity would be approximately three to four percent of the size of the constructed battery storage system. This hybrid approach would also rely on the use of on-site, BTM solar power generation to supplement the facility's backup power supply needs. Additionally, propane-fueled generators would augment the backup battery storage capacity and the BTM solar power generation. Approximately 1.25 MW of backup power generation would be needed for every 100 MW of installed battery storage capacity.

Each propane-fueled generator would have a capacity of 150 kilowatts or larger. The generators would be periodically tested (monthly) to maintain backup capability in the event of a grid emergency. The Project would include up to 20 propane-fueled generators. The exact testing schedule is not known at this time. For the purposes of the emission calculations, it was assumed that each of the 20 generators would be tested once per month for a total operation time of two hours each per month. If all generators were to be tested on the same day, this would be a total of 40 hours of cumulative operation time per day. All generators would be subject to ICAPCD review and permitting requirements.

3.3.3.4 Project Impacts and Mitigation Measures

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The primary concern for assessing consistency with air quality plans is whether the Project would induce growth that would result in a net increase in criteria pollutant emissions that exceeds the assumptions used to develop the plan. The basis for the air quality plans is SCAG population growth and regional vehicle miles traveled projections, which are based in part on the land uses established by local general plans. As such, projects that propose development that is consistent with the local land use plans would be consistent with growth projections and air quality plans emissions estimates.

If a project would result in development that is less dense than anticipated by the growth projections, the Project would be considered consistent with the air quality plans. In the event a project would result in development that results in greater than anticipated growth projections, the Project would result in air pollutant emissions that may not have been accounted for in the air quality plans and thus may obstruct or conflict with the air quality plans. As described below, the ICAPCD has implemented plans for meeting state and national standards of nonattainment pollutants.

The land use designation for the Project Site is Agriculture which assigns two vehicle trips per acre per day. The 148-acre site then would generate approximately 296 daily trips. The Project proposes a General Plan Amendment to change the land use designation from Agriculture to Industry, and a zone change from A-3 to M-2. As described below, Project operations would generate up to 20 trips per day. As compared to the existing land use designation assumed in the SIP, the Project would generate slightly more trips; however, the total number of trips would still be minimal. The Project would not result in growth that would exceed the anticipated growth projections. Additionally, as summarized in Table 3.3-6 below, operation of the Project would result in emissions that are well below all applicable Project-level significance thresholds. Therefore, Project emissions would be consistent with SCAG's growth projections and the ICAPCD's air quality plans, and impacts would be less than significant.

Table 3.3-6 Maximum Daily Operational Emissions (lb/day)

Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	<12	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	1	47	13	<1	48	5
Emergency Generator Testing	1	12	7	<1	1	1
Maximum Daily Emissions	**14**	**19**	**20**	**<1**	**48**	**6**
ICAPCD Thresholds	137	137	550	150	150	150
Exceeds Threshold	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix D
ROG=reactive organic gases; NOx=nitrogen oxides; CO=carbon monoxide; SOX=sulfur oxides; PM10=particulate matter 10 microns or less; PM2.5=particulate matter 2.5 microns or less; ICAPCD= Imperial County Air Pollution Control District

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

b) 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?

Construction

Construction of the Project would result in temporary increases in emissions of criteria pollutants and fugitive dust associated with the use of off-road diesel equipment and vehicle trips. The Project would result in emissions of criteria pollutants for which the region is nonattainment. The SSAB is nonattainment for ozone, PM_{10}, and $PM_{2.5}$.

Phase 1 construction would include multiple construction activities as compared to later phases and would represent the worst-case daily emissions scenario for the Project. The maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 3.3-7 shows the maximum daily construction emissions for Phase 1 of the Project. As shown in Table 3.3-7, the maximum daily construction emissions would be below all ICAPCD

significance thresholds. Therefore, the Project would not result in a cumulatively considerable increase of criteria pollutants for which the Project region is nonattainment and construction impacts would be less than significant. To ensure maximum daily emissions are not exceeded, mitigation measures will be required.

Table 3.3-7 Maximum Daily Construction Emissions (lb/day)

Construction Activity	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobilization/Access Road	<1	7	7	<1	144	21
Bridge, Substation, Common Facilities, and Battery Storage Phase 1 Construction	22	84	119	<1	100	14
Battery Storage Phases 2-5	7	52	79	<1	58	9
Maximum Daily Emissions	**22**	**84**	**119**	**<1**	**144**	**21**
ICAPCD Thresholds	75	100	550	NA	150	NA
Exceeds Threshold	**No**	**No**	**No**	**-**	**No**	**-**

Source: Appendix D
ROG=reactive organic gases; NOx=nitrogen oxides; CO=carbon monoxide; SOX=sulfur oxides; PM10=particulate matter 10 microns or less; PM2.5=particulate matter 2.5 microns or less; ICAPCD= Imperial County Air Pollution Control District

Prior to construction, the construction contractor will perform recordkeeping of a construction equipment list. The equipment list will include the make, model, horsepower, and actual hours of usage for off-road equipment. The equipment list(s) will be submitted periodically to the ICAPCD to perform a NO_X analysis. The ICAPCD's NO_X analysis will then be used to assure the Project impacts would remain less than significant. If the ICAPCD's NO_x analysis indicates exceedances of thresholds, the Project-related construction impacts would be mitigated per Policy 5, as provided in MM AIR-1 and MM AIR-2.

Operations

Operational emissions would occur over the lifetime of the Project generating emissions from vehicle trips and area sources such as landscaping equipment. Table 3.3-6 above shows the maximum daily operational emissions. As shown in Table 3.3-6, the maximum daily operational emissions would be below all ICAPCD significance thresholds, therefore, the Project would not result in a cumulatively considerable increase of criteria pollutants for which the Project region is nonattainment and operations impacts would be less than significant. With implementation of MM AIR-3, operational impacts would be less than significant.

Decommissioning

The Project is anticipated to operate for a total of approximately 30 years from the construction of the final phase. At the end of the Project's useful operational life, the Applicant may determine that the Project Site should be decommissioned and deconstructed, or it may seek an extension of its CUP. The emissions associated with decommissioning of the Project are not quantitatively estimated, as the extent of activities and emissions factors for equipment and vehicles at the time of decommissioning are unknown. The overall activity would be anticipated to be somewhat less than Project construction, and the emissions from off-road and on-road equipment are expected to be much lower than those for the Project construction. However, without changes in fugitive dust control methods it is likely that fugitive dust emissions would be closer to those estimated for construction. Overall, similar to construction, emissions associated with decommissioning would be less than significant.

As presented above, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. The impact is less than significant, and no mitigation is required; however, per requirements of ICAPCD, the standard mitigation measures would be implemented during construction, operation and decommissioning of the Project, including an Operational Dust Control Plan (ODCP) outlining strategies for controlling dust emissions during Project operations. As such, MM AIR-1 includes the required ICAPCD mitigation measures (for all projects). With implementation of MM AIR-1, this impact would be less than significant.

Mitigation Measures

MM AIR-1: Regulation VIII (Fugitive Dust Control Measures)

All construction sites, regardless of size, must comply with the requirements contained within Regulation VIII.

Standard Mitigation Measures for Fugitive Dust (PM10) Control

a) 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.

b) All on-site and off-site unpaved roads would 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.

c) All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day would be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

d) 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.

e) All Track-Out or Carry-Out would 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.

f) Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient amounts of water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.

g) 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 opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

MM AIR-2 Construction Equipment Control Measures

Standard Mitigation Measures for Equipment Exhaust Emissions Control

a) Use of equipment with alternative fueled or catalyst-equipped diesel engine, including for all off-road and portable diesel-powered equipment.

b) Minimize idling time either by shutting equipment off when not in use or limit the idling time to a maximum of 5 minutes.

c) Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the number of equipment in use.

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

Required Mitigation Measures for Construction Equipment Mobilization

a) The 1.2-mile portion of the access road from the IV Substation to the Project Site shall be covered with construction mats.

b) No more than eight pieces of construction equipment shall be delivered to the Project Site in one day.

c) A speed limit of 15 mph on the access road shall be enforced.

Required Mitigation Measures for Construction Activities

a) The 1.2-mile portion of the southern access road from the IV Substation to the Project Site shall be covered with construction mats.

b) A material delivery speed limit of 15 mph on the access road shall be enforced.

c) For material deliveries from the south, one of the following dust suppressant measures would be required for the 4.4-mile service road:

d) A water truck shall apply water every 3 hours, or as deliveries occur; or

e) A chemical dust suppressant shall be applied.

f) For the 0.3-mile portion of the northern access route that is unpaved (south of Wixom Road to the worker parking area) one of the following dust suppressant measures would be required:

- A water truck shall apply water every 3 hours, or as worker access occurs; or
- A chemical dust suppressant shall be applied.
- A water truck shall apply water to all active on-site grading areas every 3 hours.

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:

a) 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.

b) Implement activity management (e.g., rescheduling activities to reduce short-term impacts).

MM AIR-3: Operational Dust Control Plan

To help reduce fugitive dust emissions from on-site unpaved roads and accumulation of small dunes during operations, an Operational Dust Control Plan (ODCP) would be prepared. The ODCP would include

strategies for how dust emissions would be controlled and maintained during Project operations. The ODCP would be submitted to the ICAPCD for approval prior to the issuance of a Certificate of Occupancy.

Level of Significance After Mitigation

Implementation of the MM AIR-3 would reduce potential impacts of criteria pollutants to less-than-significant levels.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

The Project Site is in a rural environment; there are no nearby schools, day care centers, hospitals, retirement homes, or convalescence facilities. The Project Site is bounded by the Westside Main Canal to the north, BLM lands to the south and west, vacant land to the east, and the Campo Verde solar generation facility to the northwest. The IV Substation is located approximately one-third mile south of the southern property line of the Site. There are no sensitive receptors in the immediate vicinity of the Project Site. The closest sensitive receptor is a single-family residence located approximately 4,000 feet northeast of the Project Site boundary at the intersection of Wixom Road and Vogel Road.

Toxic Air Contaminants

Construction of the Project may result in temporary increases in emissions of TACs, mainly DPM from off-road diesel equipment and vehicle trips. PM exhaust from diesel-fueled engines were identified as a toxic air contaminant by CARB in 1998. Due to the limited intensity of construction and the distance to the nearest sensitive receptor (4,000 feet), DPM generated by Project construction activities is not expected to create conditions where the incremental cancer risk exceeds the ICAPCD's ten in one million significance threshold or non-cancer hazard index thresholds. Project operations would not be a significant source of TACs. Therefore, Project construction and operations would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

Fugitive Dust

During construction and operations activities, the Project would implement MM AIR-1, MM AIR-2 and MM AIR-3, which include dust control and other measures to reduce impacts to sensitive receptors in the Project vicinity. Therefore, the Project's short-term construction activities and long-term operational dust emissions would result in a less than significant impact with incorporation of mitigation.

CO Hotspots

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses. CO hotspots due to traffic almost exclusively occur at signalized intersections that operate at a LOS E or below. Projects may result in or contribute to a CO hotspot if they worsen traffic flow at signalized intersections operating at LOS E or F. The Project Site is in a rural environment with no signalized traffic intersections within several miles of the Project Site. As discussed below, Project operations would generate up to 20 trips per day at full build-out. The Project is not in proximity to a signalized intersection and would not generate substantial traffic. Therefore, the Project would not cause or contribute to a CO hotspot, and impacts would be less than significant.

Mitigation Measures

MM AIR-1: Regulation VIII (Fugitive Dust Control Measures)

MM AIR-2: Construction Equipment Control Measures

MM AIR-3: Operational Dust Control Plan

Level of Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts on sensitive receptors to less-than-significant levels.

d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. Project construction would result in the emission of diesel exhaust fumes and other odors typically associated with construction activities. Odors are highest near the source and would quickly dissipate off the Site. The nearest sensitive receptor is a single-family residence approximately 4,000 feet northeast from the Project Site boundary. Any odors associated with construction activities would be transient and would cease upon completion. Therefore, Project construction would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant. Energy storage facilities are not known to emit odors during operation. Project operation would include inspection, maintenance, and sporadic operation of emergency generators. These processes would not be significant sources of odors. Similarly, decommissioning of the Project would not generate odors. Therefore, operational impacts related to odors would also be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

3.4 BIOLOGICAL RESOURCES

This section describes the effects to biological resources that may result from the implementation of the Project. The following discussion addresses existing environmental conditions in the affected area, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid impacts anticipated from Project construction and operation. Additional detail and background on biological resources are included in the following appendices to this EIR:

- Biological Resources Technical Report – Appendix E.1
- Burrowing Owl (BUOW) Survey (Breeding and Non-Breeding)– Appendix E.2 and E.3
- Jurisdiction Delineation Report – Appendix E.4

3.4.1 Regulatory Framework

3.4.1.1 Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) provisions protect federally listed threatened and endangered species and their habitats from unlawful "take" and help ensure that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of Designated Critical Habitat (DCH). Under the FESA, "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The USFWS regulations define harm to mean "an act which actually kills or injures wildlife." Such an act "may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3).

DCH is defined in Section 3(5)(A) of the FESA as "(i) the specific areas within the geographical area occupied by the species on which are found those physical or biological features: (I) essential to the conservation of the species; (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species upon a determination by the Secretary of Commerce or the Secretary of the Interior (Secretary) that such areas are essential for the conservation of the species." The effects analyses for DCH must consider the role of the critical habitat in both the continued survival and the eventual recovery (i.e., the conservation) of the species in question, consistent with the recent Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. USFWS*.

Activities that may result in "take" of individuals are regulated by the USFWS. The USFWS produced an updated list of candidate species December 6, 2007 (72 CFR 69034). Candidate species are not afforded any legal protection under FESA; however, candidate species typically receive special attention from federal and State agencies during the environmental review process.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter or "take" any migratory bird listed in 50 CFR Part 10. "Take" is defined as possession or destruction of migratory birds, their nests, and/or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. The MBTA prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary. The MBTA encompasses whole birds, parts of birds, bird nests, and eggs.

Bald and Golden Eagle Protection Act of 1940

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of the BGEPA. “Take” of bald and golden eagles is defined as follows: “disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior’’ (72 FR 31132; 50 CFR 22.3).

The USFWS is the primary federal authority charged with the management of golden eagles in the U.S. A permit for take of golden eagles, including take from disturbance such as loss of foraging habitat, may be required for this Project. USFWS guidance on the applicability of current BGEPA statutes and mitigation is currently under review. On November 10, 2009, the USFWS implemented new rules (74 FR 46835) governing the “take” of golden and bald eagles. The new rules were released under the existing BGEPA, which has been the primary regulation protecting unlisted eagle populations since 1940.

All activities that may disturb or incidentally “take” an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this act. The definition of disturb (72 FR 31132) includes interfering with normal breeding, feeding, or sheltering behavior to the degree that it causes or is likely to cause decreased productivity or nest abandonment. If a permit is required, due to the current uncertainty on the status of golden eagle populations in western U.S., it is expected permits would only be issued for safety emergencies or if conservation measures implemented in accordance with a permit would result in a reduction of ongoing “take” or a net “take” of zero.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act, as amended in 1964, requires that all Federal agencies consult with the National Marine Fisheries Service (NMFS), USFWS, and state wildlife agencies (i.e., California Department of Fish and Wildlife [CDFW]) when proposed actions might result in modification of a natural stream or body of water. Federal agencies must consider effects that these projects would have on fish and wildlife development and provide for improvement of these resources. The Fish and Wildlife Coordination Act allows NMFS, USFWS and CDFW to provide comments to the USACE during review of projects under Section 404 of the Clean Water Act (CWA) (concerning the discharge of dredged materials into navigable waters of the United States [WOTUS]) and Section 10 of the Rivers and Harbors Act (RHA) obstructions in navigable waterways. NMFS comments provided under the Fish and Wildlife Coordination Act are intended to reduce environmental impacts to migratory, estuarine, and marine fisheries and their habitats.

Rivers and Harbors Act of 1899

Section 10 of the RHA (33 U.S.C. § 403) requires authorization from the USACE for work or structures in or affecting navigable WOTUS.

The term “navigable waters of the U. S.” generally includes those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity (33 CFR §329.4).

The term “structure” includes, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, rip rap, jetty, artificial island, artificial reef, permanent mooring structure,

power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction (33 CFR §322.2).

The term “work” includes, without limitation, any dredging or disposal of dredged material, excavation, filling, or other modification of a navigable WOTUS (33 CFR §322.2).

The geographic and jurisdictional limits of the USACE’s Section 10 jurisdiction in rivers and lakes:

(a) Jurisdiction over entire bed. Federal regulatory jurisdiction, and powers of improvement for navigation, extend laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high-water mark (OHWM). Jurisdiction thus extends to the edge (as determined above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation, or other barriers. Marshlands and similar areas are thus considered navigable in law, but only so far as the area is subject to inundation by the ordinary high waters.

    (1) The OHWM of non-tidal rivers is the 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.

    (2) Ownership of a river or lakebed or of the lands between high and low water marks will vary according to state law; however, private ownership of the underlying lands has no bearing on the existence or extent of the dominant Federal jurisdiction over a navigable waterbody.

(b) Upper limit of navigability. The character of a river will, at some point along its length, change from navigable to non-navigable. Very often that point will be at a major fall or rapids, or other place where there is a marked decrease in the navigable capacity of the river. The upper limit will therefore often be the same point traditionally recognized as the head of navigation, but may, under some of the tests described above, be at some point yet farther upstream.

The geographic and jurisdictional limits of USACE jurisdiction in oceanic and tidal WOTUS:

(a) Ocean and coastal waters. The navigable WOTUS over which USACE regulatory jurisdiction extends include all ocean and coastal waters within a zone three geographic (nautical) miles seaward from the baseline (the Territorial Seas). Wider zones are recognized for special regulatory powers exercised over the outer continental shelf. 33 CFR § 322.3(b).

    (1) Baseline defined. Generally, where the shore directly contacts the open sea, the line on the shore reached by the ordinary low tides comprises the baseline from which the distance of three geographic miles is measured. The baseline has significance for both domestic and international law and is subject to precise definitions. Special problems arise when offshore rocks, islands, or other bodies exist, and the baseline may have to be drawn seaward of such bodies.

    (2) Shoreward limit of jurisdiction. USACE regulatory jurisdiction in coastal areas extends to the line on the shore reached by the plane of the mean (average) high water. Where precise determination of the actual location of the line becomes necessary, it must be established by survey with reference to the available tidal datum, preferably averaged over a period of 18.6 years. Less precise methods, such as observation of the “apparent shoreline” which is determined by reference to physical markings, lines of vegetation, or changes in type of vegetation, may be used only where an estimate is needed of the line reached by the mean high water.

(b) Bays and estuaries. USACE regulatory jurisdiction extends to the entire surface and bed of all waterbodies subject to tidal action. Jurisdiction thus extends to the edge (as determined by paragraph (a)(2) above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation, or other barriers. Marshlands and similar areas are thus considered "navigable in law," but only so far as the area is subject to inundation by the mean high waters. The relevant test is therefore the presence of the mean high tidal waters, and not the general test described above, which generally applies to inland rivers and lakes.

Structures or work outside the limits defined above for navigable WOTUS require a Department of the Army (DOA) permit pursuant to Section 10 of the RHA if the structure or work affects the course, location, or condition of the water body in such a manner as to impact on its navigable capacity (33 CFR § 322.3).

Section 14 of the Rivers and Harbors Act

Section 14 of the RHA of 1899 (33 U.S.C. § 408), commonly referred to as "Section 408," authorizes the USACE to grant permission to alter, occupy, or use a USACE civil works project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project. If a project would modify, alter, and/or occupy an existing USACE-constructed public works project (e.g., a levee); the project would require authorization under Section 14 of the RHA of 1899 and codified in 33 U.S.C. 408 (Section 408). In order for the USACE Lead District to approve any proposed alterations requests, it must meet USACE standards, and must not be injurious to the public interest or affect the USACE project's ability to meet its authorized purpose.

The concrete banks and berms of this flood damage reduction channel are under USACE jurisdiction and changes to them would require a Section 408 permit from the USACE prior to modification.

Federally Regulated Habitats

Areas that meet the regulatory definition WOTUS are subject to the jurisdiction of the USACE under provisions of Section 404 of the CWA (1972) and Section 10 of the RHA (1899). WOTUS may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (e.g., intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as WOTUS, tributaries of waters otherwise defined as WOTUS, territorial seas, and wetlands (i.e., "Special Aquatic Sites") adjacent to WOTUS (33 CFR, Part 328, Section 328.3).

Construction activities within WOTUS are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit would be effective in the absence of State Water Quality Certification pursuant to Section 401 of the CWA. As a part of the permit process the USACE works directly with the USFWS to assess potential project impacts on biological resources.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 requires all federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and utilize public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements and prepare appropriate NEPA documents to facilitate better environmental decision making. NEPA requires federal agencies to review and comment on federal agency environmental plans/documents when the agency has jurisdiction by law or special expertise with respect to any environmental impacts involved (42 U.S.C. 4321- 4327; 40 CFR 1500-1508).

3.4.1.2 State

California Endangered Species Act

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

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

Birds of prey are protected in California under the FGC. California FGC Section 3503.5 states it is "unlawful to 'take', possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) or to 'take', possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW. Under Sections 3503 and 3503.5 of the California FGC, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to California FGC Section 3800 are prohibited.

Lake and Streambed Alteration Agreements

Sections 1600-1603 of the California FGC requires any person, State or local governmental agency, or public utility which proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or use materials from a streambed, or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, to first notify the CDFW of a proposed project. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. Based on the notification materials submitted, the CDFW will determine if a proposed project may impact fish or wildlife resources.

If the CDFW determines that a proposed project may substantially adversely affect existing fish or wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) will be required. A completed CEQA document must be submitted to CDFW before a LSAA will be issued.

California Native Plant Protection Act

Under California FGC Section 1900 to 1913, the NPPA requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of Native Plant Protection Act (NPPA) prohibit the taking of listed plants from the wild and require notification of the CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would

otherwise be destroyed. A project applicant is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of the NPPA and sections of CEQA that apply to rare or endangered plants.

Porter-Cologne Water Quality Control Act

The California Regional Water Quality Control Board (RWQCB) regulates the "discharge of waste" to "waters of the State" (WOTS). All projects proposing to discharge waste that could affect WOTS must file a Waste Discharge Report with the appropriate RWQCB. The board responds to the report by issuing Waste Discharge Requirements or by waiving them for that project discharge. Both terms "discharge of waste" and WOTS are broadly defined such that discharges of waste include fill, any material resulting from human activity, or any other "discharge." Isolated wetlands within California, which are no longer considered WOTUS, as defined by Section 404 of the CWA, are addressed under the Porter Cologne Water Quality Control Act.

State-Regulated Habitats

The State Water Quality Control Board (SWQCB) is the State agency (together with the RWQCBs) charged with implementing water quality certification in California.

The CDFW extends the definition of stream to include "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS-defined), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife" (CDFW 1994).

Activities that result in the diversion or obstruction of the natural flow of a stream; or which substantially change its bed, channel, or bank; or which utilize any materials (including vegetation) from the streambed, may require that the project applicant enter into a LSAA with the CDFW.

3.4.1.3 Local

Imperial County General Plan – Conservation and Open Space Element

The Conservation and Open Space Element of the General Plan contains policies and programs that are designed to protect and conserve environmental resources in the County while encouraging economic development and growth. Resources covered under the Conservation and Open Space Element consist of the following: biological resources, cultural resources, geology and soils, mineral resources, regional aesthetics, air quality and climate change, and open space and recreation.

The goals and objectives relative to natural resources that apply to the Project are as follows:

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 1.1** Encourage uses and activities that are compatible with the fragile desert environment and foster conservation.
>
> **Objective 1.2** Coordinate the acquisition, designation, and management of important natural and cultural resource areas in Imperial County with other governmental agencies as appropriate.

Objective 1.4 Ensure the conservation and management of the County's natural and cultural resources.

Objective 1.6 Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.

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.

Objective 2.1 Designate critical habitats for Federally and State-listed species.

Objective 2.2 Develop management programs, including preservation of habitat for flat-tailed horned lizard, desert pupfish, and burrowing owl.

Objective 2.4 Use the CEQA and NEPA process to identify, conserve, and restore sensitive vegetation and wildlife resources.

Objective 2.6 Attempt to identify, reduce, and eliminate all forms of pollution: including air, noise, soil, and water.

County policies and programs relative to natural resources that apply to the Project are as follows:

Biological Resource Conservation

Policy: Provide a framework for the conservation and enhancement of natural and created open space which provides wildlife habitat values.

Programs

- Identify Resource Areas to conserve and enhance native vegetation and wildlife. These areas include agency designated sensitive habitats with the USFWS, BLM Areas of Critical Environmental Concern, and CDFW. These designated lands are designed for the protection and perpetuation of rare, endangered, and threatened species and areas important for scientific study.

- Projects within or in the vicinity of a Resource Area should be designed to minimize adverse impacts on the biological resources it was created to protect.

- Develop an environmental mitigation program that protects and restores Salton Sea wildlife habitats as offsets to biological disturbances identified through the CEQA review process for development projects. The program would allow the County and/or Salton Sea Joint Powers Authority to restore habitat through financing mechanisms including land banks and/or direct financial contributions from the developers to mitigate their impacts.

- Protect riparian habitat and other types of wetlands from loss or modification by dedicating open space easements with adequate buffer zones, and by other means to avoid impacts from adjacent land uses. Road crossings or other disturbances of riparian habitat should be minimized and only allowed when alternatives have been considered and determined infeasible.

- Preserve existing California fan palms in natural settings and other individual specimen trees which contribute to the community character and provide wildlife habitat.

- Preserve and encourage the open space designation of wildlife corridors which are essential to the long-term viability of wildlife populations.

- Integrate open space dedications in private developments with surrounding uses to maximize a functional open space/recreation and wildlife management system.

Policy: Landscaping should be required in all developments to prevent erosion on graded sites and, if the area is contiguous with undisturbed wildlife habitat, the plan should include revegetation with native plant species.

Programs

- Revegetation plans shall be submitted and approved by the ICPDS department and relevant resource agencies for the mitigation of sensitive habitat lost, and for disturbed areas created by roads or installation of facilities adjacent to native habitat. Such plans shall mitigate for the loss of sensitive habitat and habitat value based on a ratio consistent with accepted policy, as recommended by the State and Federal resource agencies.

3.4.1.4 Other Applicable Regulations, Plans, and Standards

California Native Plant Society Rare Plant Program

The mission of the California Native Plant Society (CNPS) Rare Plant Program (CRPR) is to develop current, accurate information on the distribution, ecology, and conservation status of California's rare and endangered plants, and to use this information to promote science-based plant conservation in California. Once a species has been identified as being of potential conservation concern, it is put through an extensive review process. Once a species has gone through the review process, information on all aspects of the species (e.g., listing status, habitat, distribution, threats, etc.) are entered into the online CNPS Rare Plant Inventory and given a CRPR. The Program currently recognizes more than 1,600 plant taxa (species, subspecies, and varieties) as rare or endangered in California.

Vascular plants listed as rare or endangered by the CNPS, but which might not have a designated status under State endangered species legislation, are defined by the following CRPR:

- CRPR 1A: Plants considered by the CNPS to be extinct in California
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere
- CRPR 3: Plants about which we need more information—a review list
- CRPR 4: Plants of limited distribution—a watch list

In addition to the CRPR designations above, the CNPS adds a Threat Rank as an extension added onto the CRPR and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered and are described as follows:

- Seriously threatened in California (high degree/immediacy of threat)
- Fairly threatened in California (moderate degree/immediacy of threat)
- Not very threatened in California (low degree/immediacy of threats or no current threats known

3.4.2 Environmental Setting

This section presents information on biological resources in the Project region and describes baseline conditions within the Project area. In addition, this section includes vegetation types to characterize the botanical resources and potential for wildlife to occur on the Project Site. Biotic habitats suitable for the occurrence of plant and wildlife species of special status (State and federally listed threatened and endangered species, federal candidate species, CNPS List species, and California SSC) are also described.

3.4.2.1 Baseline Data Collection Methodology

Information used in preparing this section was derived from a number of sources, including biological technical reports provided by the Applicant and included in Appendix E, review of existing literature, consultation with technical experts, and reconnaissance surveys of the Project Site. Biological resource data included, but were not limited to the following:

Applicant's Reports and Survey Results

Information used in preparing this section and in the evaluation of potential impacts to biological resources was derived from a number of sources, including vegetation and wildlife surveys conducted by RECON between 2018 and 2019. A detailed list of these surveys can be found in Appendix E.

Literature Search and Review of Existing Data

The Applicant conducted an analysis of existing sensitive species data recorded within two miles of the Project Site. This analysis included searches of the California Natural Diversity Database (CNDDB), CDFW (CDFW 2019a), the All Species Occurrences Database (USFWS 2019), and a search of the CNPS online rare plants database within eight United States Geological Survey (USGS) quadrangles surrounding the Site (CNPS 2020). Additional maps, imagery, and databases reviewed included USGS topographic maps (1976), soils survey maps (USDA 1981, 2017), online aerial satellite imagery (Google Earth 2018), the Consortium of California Herbaria (2019), and the Amphibian and Reptile Atlas of Peninsular California (SDNHM 2019). A review of existing literature relevant to the biological resources known from the vicinity of the Project Site was also conducted, as noted in Appendix E.

Additional species not found during the records search were assessed if the range for that species extended into the Project Site and habitat conditions within the Project Site were potentially suitable for that species. Determination of the potential occurrence for sensitive species was based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; CDFW 2019a; Baldwin et al 2012; Jepson Flora Project (eds.) 2019, CNPS 2019; Reiser 2001; Tremor et al. 2017; Western Bat Working Group 2017; Harvey et al. 2011).

Collection of Field Data

The Applicant conducted general biological surveys, focused burrowing owl surveys, and rare plant surveys between 2018 and 2019 to collect filed data. A breakdown of the survey times and conditions is presented below in Table 3.4-1. A detailed description of field survey methodologies can be found within the technical reports appended to the EIR (Appendix E).

Table 3.4-1 Biological Survey Summary

Date	Survey Type and Number	Beginning Conditions	Ending Conditions
4/5/2018	BUOW Habitat Assessment	09:25; 82ºF; 2–4 mph wind; sunny	14:00; 94ºF; 2–5 mph wind; 50% high, thin cloud cover
4/13/2018	BUOW Breeding Season Survey 1	17:20; 81ºF; 2–9 mph wind; clear sky	19:36; 70 ºF; calm wind; clear sky
4/14/2018		06:00; 55ºF; 0–2 mph wind; clear sky	09:55; 78ºF; 1–3 mph wind; clear sky
5/7/2018	BUOW Breeding Season Survey 2	17:45; 95ºF; 1–4 mph wind; 0% cloud cover, slight haze	19:55; 92 ºF; 2–9 mph wind; 0% cloud cover, slight haze
5/8/2018		05:25; 67ºF; 2–4 mph wind; 0% cloud cover, slight haze	09:20; 88ºF; 2–6 mph wind; 75% high, thin cloud cover
5/29/2018	BUOW Breeding Season Survey 3	17:45; 99ºF; 1–3 mph wind; 30% cloud cover	20:11; 94ºF; 4–11 mph wind; 20% cloud cover
5/30/2018		05:20; 68ºF; 2–4 mph wind; 2% cloud cover	09:45; 93ºF; 2–6 mph wind; 1% cloud cover with haze
7/5/2018	BUOW Breeding Season Survey 4	17:55; 108ºF; 1–5 mph wind; 15% high, thin cloud cover	20:22; 100ºF; calm wind; 5% high, thin cloud cover
7/6/2018		05:15; 83ºF; 2–4 mph wind; 25% cloud cover	09:35; 103ºF; 1–3 mph wind; 40% cloud cover
10/4/2018	BUOW Non-breeding Season Survey 1	16:22; 89ºF; 5–10 mph wind; 5% cloud cover	19:36; 84 ºF; 5–10 mph wind; 5% cloud cover
10/5/2018		06:14; 69ºF; 3–6 mph wind; clear sky	09:55; 82ºF; 5–12 mph wind; <1% cloud cover
11/8/2018	BUOW Non-breeding Season Survey 2	14:45; 82ºF; 6–12 mph wind; 0% cloud cover	19:11; 74 ºF; 2–7 mph wind; 0% cloud cover
11/9/2018		05:41; 51ºF; 0–2 mph wind;0% cloud cover	10:00; 78ºF; 0–7 mph wind; 0% cloud cover
12/6/2018	BUOW Non-breeding Season Survey 3	14:38; 70ºF; 0–1 mph wind; 0% cloud cover	17:05; 59ºF; 0–1 mph wind; 0% cloud cover
12/7/2018		06:11; 45ºF; 0 mph wind; 15% cloud cover	10:00; 59ºF; 0–2 mph wind; 90% cloud cover
1/24/2019	BUOW Non-breeding Season Survey 4	15:07; 71ºF; 3–6 mph wind; 85% cloud cover	17:33; 61ºF; 0–2 mph wind10% cloud cover
1/25/2019		06:15; 46ºF; 0–2 mph wind; 5% cloud cover	10:00; 69ºF; 0–2 mph wind; <1% cloud cover
2/5/2019	General Biological Survey	—	—
	Wetland/Waters Delineation	—	—
4/23/2019	Rare Plants Survey	—	—

BUOW = burrowing owl; ºF = degrees Fahrenheit; mph = miles per hour

3.4.3 Project Setting

3.4.3.1 Vegetation Communities and Land Cover Types

The following vegetation communities and land cover types were mapped within the Project Site and the surrounding 100-foot radius: upland mustards (*Brassica* spp. and Other Mustards Semi-Natural Herbaceous Stands), fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance), creosote bush scrub (*Larrea tridentata* Shrubland Alliance), quailbush scrub (*Atriplex lentiformis* Shrubland Alliance), arrow weed thickets (*Pluchea sericea* Shrubland Alliance), tamarisk thickets (*Tamarix* spp. Semi-Natural Shrubland Stands), common reed marshes (*Phragmites australis* Herbaceous Alliance and Semi-Natural Stands), eucalyptus groves (*Eucalyptus* spp. Semi-Natural Woodland Stands), cattail marshes (*Typha* sp. Herbaceous Alliance), disturbed habitat, fallow agriculture, open water, and developed land. A brief description of each community or land cover type is also provided below in order of prevalence within the Project Site and surrounding 100-foot radius (RECON 2021). Table 3.4-2 lists the acreage of each mapped vegetation community or land cover type within the Project Site and within 100-feet.

Table 3.4-2 Vegetation Communities/Land Cover Types within the Project Site and Surrounding 100-foot Radius

Vegetation Community/Land Cover Type	Project Area (acres)	100-foot Buffer (acres)
Upland mustards	74.70	0.97
Fourwing saltbush scrub	47.74	2.52
Fallow agriculture	13.56	1.40
Arrow weed thickets	6.87	2.01
Creosote bush scrub	6.43	10.47
Disturbed habitat	5.77	7.36
Tamarisk thickets	5.26	1.34
Quailbush scrub	2.15	1.33
Eucalyptus groves	0.58	—
Cattail marshes	0.14	—
Open water	0.10	5.75
Common reed marshes	0.04	2.42
Developed land	0.00	1.63
Totals	163.32*	37.20

*Total acreage varies from sum of cells due to rounding.

Vegetation Communities

Upland Mustards

Upland mustards is the predominant vegetation community within the Project Site and is primarily found south of the Westside Main Canal. The vegetation is open and low-growing and comprises a mix of non-native and native annual plant species. Total vegetative cover ranges between 10 and 40 percent, with London rocket (*Sisymbrium irio*) as the dominant species. Other common plants include the native narrow leaf cryptantha (*Cryptantha angustifolia*) and non-native Mediterranean schismus (*Schismus barbatus*).

Native annuals such as yellow cups (*Chylismia brevipes*) and brown-eye primrose (*Chylismia claviformis*) are scattered in low numbers.

Fourwing Saltbush Scrub

Fourwing saltbush scrub is the predominant vegetation community within the western and southwestern portions of the Project Site, south of the Westside Main Canal. An additional linear stand of this community parallels the south side of the Westside Main Canal access road in the eastern half of the Project Site. Total shrub cover ranges between 10 and 40 percent, and shrub height averages three to four feet. The dominant shrub species is fourwing saltbush with scattered creosote occurring within the southernmost stand in the Project Site.

Herbaceous cover is approximately 15 percent and comprises low-growing native and non-native annuals, including narrow-leaf cryptantha, London rocket, and Mediterranean schismus with the addition of desert indianwheat (*Plantago ovata*) in the southwestern stand.

Creosote Bush Scrub

Creosote bush scrub largely occurs in the areas along the west, south, and southeast boundaries of the Project Site, south of the Westside Main Canal. This community occurs in the desert areas that have been subjected to minimal historical disturbance and has begun to re-establish along the edges of the Project Site since abandonment of the agricultural fields. Outside of the Project Site, total shrub cover averages between 20 and 30 percent, and shrub height averages five to six feet. Within the Project Site, shrub density is lower, and height is shorter at approximately 10 percent and three feet, respectively. Creosote is the dominant shrub species throughout this community. Alkali goldenbush (*Isocoma acradenia* var. *eremophila*) occurs as a subdominant shrub species in the southeastern stand, where lateral seepage from the Westside Main Canal has resulted in a higher water table.

Fourwing saltbush is scattered throughout the majority of this community in the drier western and southern stands. Herbaceous cover is low, reaching 20 percent cover in some areas, and includes low-growing native annuals and bulbs such as yellow cups, brown-eye primrose, narrow-leaf cryptantha, and desert lily (*Hesperocallis undulata*).

Arrow Weed Thickets

Arrow weed thickets occur in five different patches, the majority of which occur as linear stands paralleling the Westside Main Canal and an active concrete-lined irrigation channel in the northern portion of the Project Site. The largest stand occurs at the eastern edge of the Project Site, continues off-site to the east and south, and may have developed as a result of lateral seepage of water from the Westside Main Canal. Arrow weed dominates this vegetation community at approximately 50 percent cover. Occasional saltcedar (*Tamarix ramosissima*) shrubs or trees occur within this vegetation community, and the understory consists of a sparse cover of non-native mustards and narrow leaf cryptantha in openings between shrubs.

Tamarisk Thickets

Tamarisk thickets occur as several distinct stands, including linear patches along a network of berms and irrigation ditches that likely were manufactured for agriculture use but have since been abandoned, as well as clusters of trees along the southern boundary of the Project Site. These patches of tamarisk thickets are dominated by either saltcedar, with an approximate cover of 30 percent, or athel (*Tamarix aphylla*), with an approximate cover of 80 percent. The patches of athel were likely planted as a wind screen when the Site was used for agriculture.

One patch of tamarisk thicket occurs within an abandoned agriculture field in the southeast portion of the survey area and contains sparse, shrub-sized saltcedar at approximately 10 percent cover. These individuals likely established naturally but currently appear to be stressed with substantially diminished canopies.

One additional stand parallels the access road along the south side of the Westside Main Canal; this patch is dominated by saltcedar at approximately 50 percent cover. The saltcedar individuals in this northern patch appear mature and robust.

Quailbush Scrub

Quailbush scrub occurs in two stands north of the Westside Main Canal and west of Liebert Road. At approximately 50 percent cover, quailbush dominates this vegetation community. The understory is mostly bare, with sparse cover of upland herbaceous species, such as Bermuda grass and London rocket. The eastern patch of quailbush scrub is small and surrounded by arrow weed thickets and disturbed habitat and occurs with a small patch of eucalyptus groves. The western patch of this vegetation community is larger, extending north and west beyond the 100-foot radius of the Project Site. Both patches occur within areas that appear to have been used historically for agriculture but have since remained fallow. Manufactured berms and ditches occur along much of the perimeters of the patches.

Common Reed Marshes

Common reed marshes occur as linear stands averaging between five and ten feet in width along the banks of the Westside Main Canal. This vegetation community is dominated by common reed, which comprises approximately 35 percent cover. Arrow weed occurs in most portions of this vegetation community as a subdominant species at approximately five percent cover. The banks of the Westside Main Canal are steep and contain a substantial proportion of large rock and pieces of concrete. Although common reed growth occurs both along the slope and on top of the banks, no growth occurs from portions of the bank at or below the water level.

Eucalyptus Groves

The on-site eucalyptus grove comprises one small cluster of eucalyptus trees in the northern portion of the Project Site, adjacent to the intersection of Liebert Road and Mandrapa Road, north of the Westside Main Canal. The trees are mature, 30 to 50 feet tall, and include coolibah (*Eucalyptus microtheca*).

Cattail Marshes

Cattail marshes occur only within the small, concrete-lined irrigation channel extending east-west north of the Westside Main Canal. This vegetation community is dominated by southern cattail (*Typha domingensis*). However, it appears this vegetation was dug out of the irrigation channel prior to the February 2019 survey, as the removed cattails were observed piled nearby.

Land Cover Types

Fallow Agriculture

Fallow agriculture is the predominant land type cover in the portion of the Project Site north of the Westside Main Canal, where the land was previously used for agriculture but has remained inactive since at least 2013. These areas support 10 to 80 percent cover of herbaceous vegetation, heavily dominated by non-native Bermuda grass (*Cynodon dactylon*) and averaging one foot in height. Scattered non-native annuals Mediterranean schismus and prickly lettuce (*Lactuca serriola*) occur throughout, and native alkali goldenbush shrubs occur in low numbers in the western portion of this cover type.

Disturbed Habitat

Disturbed habitat consists of bare ground and dirt roads (i.e., Westside Main Canal roads, Liebert Road) that are subjected to continued disturbance, preventing establishment of substantial vegetation cover. The few plants that occur within or along the edges of these areas include alkali heliotrope (*Heliotropium curassavicum*) along the Westside Main Canal roads, London rocket, and nettle-leaf goosefoot (*Chenopodium murale*).

Open Water

Areas of open water occur within the Westside Main Canal and one concrete-lined irrigation channel. Although most portions of the open water do not contain any plants, the east-west concrete-lined channel north of the Westside Main Canal contains portions with a moderate accumulation of coontail (*Ceratophyllum demersum*) and long filamentous algae. Cover of aquatic plants within this channel is less than five percent; therefore, the channel is considered unvegetated.

Developed Land

Developed land is mapped within the 100-foot radius immediately north of the Project Site and comprises solar PV development.

3.4.3.2 Jurisdictional and Other Waters

A routine jurisdictional waters/wetland delineation of the Project Site (including a 100-ft buffer) was conducted on February 5, 2019. Methods for delineating wetlands adhered to the following guidelines set forth by the USACE: the 1987 *Corps of Engineers Wetlands Delineation Manual* (USACE 1987), the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008).

The results of the delineation are summarized below in Table 3.4-3; for additional details on the delineation please refer to the technical report in Appendix E.

Table 3.4-3 Existing Jurisdictional Waters within the Project Site and Surrounding 100-foot Radius

Jurisdictional Waters	Project Area (acres)	100-foot Buffer
U.S. Army Corps of Engineers total jurisdictional waters (section 404 permit)	0.21	5.76
Non-wetland waters of the U.S.	0.21	5.76
California Department of Fish and wildlife (section 1602 permit) and Regional Water Quality Control Board (section 401 certification) Total Jurisdictional Waters[1]	9.43	11.52
Wetland waters of the state	9.22	5.76
Streambed	0.21	5.76

1) California Department of Fish and wildlife and Regional Water Quality Control Board area of jurisdiction includes all U.S. Army Corps of Engineers jurisdictional waters.

3.4.3.3 Common Wildlife

A total of 127 animal species were detected within the Project Site and surrounding areas (within 150-meter [500-foot] radius) during the 2018 and 2019 biological surveys. These comprise 25 invertebrates, one amphibian, seven reptiles, 84 birds, and 10 mammals typical of Colorado Desert communities and agricultural areas and are summarized below. A complete list of animal species detected during the 2018 and 2019 surveys is included in Appendix E. Sensitive animal species observed are discussed in below.

Invertebrates

Invertebrates detected during the 2018 and 2019 surveys include common insects, such as mosquito (*Culex* sp.), darkling beetle (not identified to species), tarantula hawk (*Pepsis* sp.), honey bee (*Apis* sp.), and cicada (not identified to species); scorpion (not identified to species; detected by tracks); three ant species including California harvester ant (*Veromessor stoddardi*) and black harvester ant (*Veromessor pergandei*); eight butterfly or skipper species including painted lady (*Vanessa cardui*), western pygmy-blue (*Brephidium exile*), orange sulphur (*Colias eurytheme*), and fiery skipper (*Hylephila phyleus muertovalle*); and two dragonflies, roseate skimmer (*Orthemis ferruginea*) and Mexican amberwing (*Perithemis intense*) (RECON 2021).

Amphibians and Reptiles

One invasive amphibian species, American bullfrog (*Lithobates catesbeiana*), was detected during the 2018 and 2019 biological surveys.

The following five reptile species were observed: western banded gecko (*Coleonyx variegatus variegatus*), western zebra-tailed lizard (*Callisaurus draconoides rhodostictus*), long-tailed brush lizard (*Urosaurus graciosus*), Great Basin tiger whiptail (*Aspidoscelis tigris tigris*), and Colorado Desert sidewinder (*Crotalus cerastes laterorepens*). In addition, turtle tracks were observed near the Westside Main Canal and likely belong to spiny softshell turtle (*Apalone spinifera*), which is an introduced species known to occur in the area (Daniel and Morningstar 2019, RECON 2021). Flat-tailed horned lizard (*Phrynosoma mcallii*) is also assumed present within the Project Site based the observation of horned lizard tracks and the known occurrence of the species in the immediate vicinity of the Project Site (RECON 2021). Flat-tailed horned lizard is discussed further below under Special-Status Wildlife.

Birds

Common avian species routinely observed within or adjacent to the Project Site include Abert's towhee (*Melozone aberti*), Gambel's quail (*Callipepla gambelii gambelii*), rock dove (*Columba livia*), blue-gray gnatcatcher (*Polioptila caerulea*), black-tailed gnatcatcher (*P. melanura*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus frontalis*), Say's phoebe (*Sayornis saya*), verdin (*Auriparus flaviceps acaciarum*), western meadowlark (*Sturnella neglecta*), and lesser goldfinch (*Spinus psaltria hesperophilus*) (RECON 2021).

Mammals

The following 10 mammal species were detected during the 2018 and 2019 biological surveys: desert black-tailed jackrabbit (*Lepus californicus deserticola*), desert cottontail (*Sylvilagus audubonii*), round-tailed ground squirrel (*Spermophilus tereticaudus*), Botta's pocket gopher (*Thomomys bottae*), kangaroo rat (*Dipodomys* sp.), coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), northern raccoon (*Procyon lotor*), American badger (*Taxidea taxus*), and bobcat (*Lynx rufus*) (RECON 2021). American badger is discussed further below under Special-Status Wildlife.

3.4.3.4 Special-Status Natural Communities

Special-status natural communities are defined by CDFW (2009) as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." All vegetation within the state is ranked with an "S" rank, however only those that are of special concern (S1-S3 rank) are generally evaluated under CEQA. Arrow weed thickets, which have a rank of S3, were mapped within the Project Site.

Special-Status Plants

No sensitive plant species were observed during the focused rare plant surveys or other biological surveys conducted in 2018 and 2019 for the Project, and no sensitive plant species were determined to have a moderate or high potential to occur within or adjacent to the Project Site. Refer to Appendix E for a summary of the potential for occurrence of sensitive plant species that were assessed based on species locations records, habitat suitability, and soil preferences.

3.4.3.5 Special-Status Wildlife

Flat-tailed Horned Lizard (*Phrynosoma mcallii*)

Flat-tailed horned lizard is a CDFW species of special concern and BLM sensitive species. Flat-tailed horned lizard is found in the low deserts of southwestern Arizona, southeastern California, and adjacent portions of northwestern Sonora and northern Baja California, Mexico. In California, flat-tailed horned lizard is restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. The majority of habitat for the species is in Imperial County (CDFW 2018c; Turner et al. 1980 as cited in Flat-tailed Horned Lizard ICC 2003). This species is known to inhabit sand dunes, sheets, and hummocks, as well as gravelly washes. It is thought to be most abundant in creosote bush scrub. However, this species may be found in a variety of desert scrub communities, desert wash, succulent shrub, alkali scrub, sparsely vegetated sandy flats, desert pavement, and rocky slopes. It is typically found in dry, hot areas of low elevation (less than 800 feet; ICC 2003). Flat-tailed horned lizards escape extreme temperatures by digging shallow burrows in the loose sand. Adults are primarily active from mid-February to mid-November. Breeding activity takes place in the spring with young hatching in late July and September. The diet of horned lizards typically consists of greater than 95 percent native ant species, mostly large harvester ants (including *Pogonomyrmex* spp. and *Veromessor* spp.). Human activities have resulted in the loss of approximately 49 percent of the historic habitat of flat-tailed horned lizard (ICC 2003). The decline in this species' population is primarily due to impacts from utility lines, roads, geothermal development, sand and gravel mining, off-highway vehicle recreation, waste disposal sites, military activities, pesticide use, and U.S. Border Patrol activities (ICC 2003).

Many occurrences of flat-tailed horned lizard have been reported in the undeveloped desert areas immediately west and south of the Project Site (CDFW 2019a), and horned lizard tracks were observed during 2018 surveys in the western portion of the Project Site, south of the Westside Main Canal. Given the cryptic nature and resulting difficulty of detection without focused surveys, these historical records are sufficient to assume this species is present in the creosote bush scrub and fourwing saltbush scrub within and adjacent to the Project Site. Within the Project Site, these communities provide high-quality habitat for this species, with sandy hummocks having re-established in the old agricultural fields, a good diversity of native plant species, and harvester ants present. The remainder of the Project Site south of the Westside Main Canal provides marginally suitable habitat, and flat-tailed horned lizard has a high potential to occur due only to the adjacency of high-quality habitat. North of the Westside Main Canal, this species has a low potential to occur due to the prevalence of active agriculture and solar development.

Ferruginous Hawk (*Buteo regalis*)

Ferruginous hawk (wintering) is a CDFW watch list species (CDFW 2018c). This species is a fairly common winter visitor to southern California from mid-September to late April (Small 1994). The ferruginous hawk's winter range includes open terrain such as grassland, open shrub lands, desert edges, and agricultural lands (Bechard and Schmutz 1995; Small 1994). Its diet is predominantly rabbits and ground squirrels, which are captured by hunting from perches and by aerial hunting (Bechard and Schmutz 1995). Population declines are believed to be due to a general loss of grassland habitat as a result of urban development and overgrazing (Unitt 2004).

Ferruginous hawk was observed flying overhead during the December 2018 and January 2019 surveys. This species is likely to forage within the open vegetation of the Project Site and adjacent agricultural fields during winter due to the presence of common prey items such as cottontail rabbits, jackrabbits, and ground squirrels. The eucalyptus trees within the northern Project Site and utility towers within and adjacent to the Project Site may provide suitable nest sites. However, the Project Site is outside this species' known breeding range, and this species was not observed on-site during its typical breeding season. Therefore, ferruginous hawk is only expected to occur as a winter visitor and is not expected to nest within or adjacent to the Project Site.

Prairie Falcon (*Falco mexicanus*)

Prairie falcon (nesting) is a CDFW watch list species (CDFW 2018c). The prairie falcon is a permanent resident within the arid open lands of interior California, including the Colorado Desert (Small 1994). This species' primary foraging habitat includes open perennial and annual grasslands, savannahs, rangeland, agricultural fields, and desert scrub areas (Unitt 2004). Ground squirrels (*Spermophilus* spp.) make up the bulk of the prairie falcon's diet, but they will also prey on small birds such as horned lark (*Eremophila alpestris*) and western meadowlark, especially during the winter (Steenhof 2013). This species nests directly on cliff ledges or bluffs, without building a nest, and occasionally in rock crevices that are near suitable foraging habitat. However, they are also known to reuse old raven or eagle nests. The prairie falcon will forage as far away as 20 to 25 miles from their nesting site where the density of prey is low (Unitt 2004). Current threats to prairie falcon populations include human disturbance near nest sites and the loss of foraging habitat (Unitt 2004). Urbanization of foraging habitats within the desert badlands has resulted from agricultural encroachment, livestock-grazing, energy development activities, off-road vehicle use, and military training (Steenhof 2013).

Prairie falcon was observed flying overhead and foraging in the active agricultural fields adjacent to the northern portion of the Project Site in the early July, early October, and mid- December 2018. The Project Site and surrounding areas provide suitable open desert habitat and agricultural fields for foraging. The Project Site and surrounding areas lack suitable cliff faces or bluffs preferred for nesting. However, the utility towers that occur within and adjacent to the west side of the Project Site may provide nesting opportunities, as this species is known to reuse old raven nests. Therefore, this species is expected to occur as a winter visitor and has a low potential to nest on or adjacent to the Project Site due to the presence of lattice utility towers.

Burrowing Owl (*Athene cunicularia*)

Burrowing owl (burrow sites and some wintering sites) is a CDFW species of special concern and BLM sensitive species (CDFW 2018c). This species occurs as a year-round resident and winter visitor in the County. Habitat for the burrowing owl includes dry, open, short-grass areas with level to gentle topography and well-drained soils, as well as agricultural areas (CDFW 2012; Small 1994). These areas are also often associated with burrowing mammals (Haug et al. 1993). The burrowing owl is diurnal and perches during daylight at the entrance to its burrow or on low posts. Nesting occurs from March through August. Burrowing

owls form pair-bonds for more than one year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993). The female remains inside the burrow and is fed by the male during most of the egg laying and incubation period. Burrowing owls are opportunistic feeders, consuming a diet that includes arthropods, small mammals, and birds, and occasionally amphibians and reptiles (Haug et al. 1993). Urbanization has greatly reduced the amount of suitable habitat for this species (Lincer and Bloom 2007). Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs, road and ditch maintenance, and collisions with automobiles (CDFW 2012).

As described in the burrowing owl survey reports (RECON 2018, 2019a), no burrowing owls were observed on the Project Site during the 2018 breeding season surveys, but four burrowing owl observations were recorded within the Project Site during the 2018-2019 non-breeding season surveys. These observations indicate that at least two, but likely three, individuals, appear to use the Project Site and surrounding areas as a wintering site or for migration and dispersal, but is not currently using the Site as breeding habitat. The creosote bush scrub, fourwing saltbush scrub, upland mustards, fallow agriculture, and disturbed habitat within and adjacent to the Project Site provide suitable habitat for this species for breeding and wintering due to the open structure of the vegetation, presence of prey items, and abundance of potentially suitable burrows. As the denser stands of arrow weed thickets and tamarisk thickets occur as small or linear patches within larger expanses of open vegetation, these typically unsuitable communities may also contribute suitable perch sites.

Loggerhead Shrike (*Lanius ludovicianus*)

Loggerhead shrike (nesting) is a CDFW species of special concern (CDFW 2018c). This species inhabits most of the continental U.S. and Mexico and is an uncommon year-round resident of southern California. It prefers washes with scattered trees or shrubs, or valley floors with scattered thickets of mesquite (*Prosopis* spp.) or saltbush (*Atriplex* spp.). Outside the desert this species inhabits grasslands, agricultural fields, open sage scrub, and chaparral (Unitt 2004). The loggerhead shrike requires open habitat with tall shrubs or trees to use as perches for hunting and fairly dense shrubs for nesting. It may also use fences or power lines for hunting perches (Shuford and Gardali 2008; Yosef 1996). Loggerhead shrikes are highly territorial and usually live in pairs in permanent territories (Yosef 1996). This species feeds on small reptiles, mammals, smaller birds, amphibians, and insects that they often impale on sticks or thorns before eating (CDFW 2014a). This bird may also be associated with freshly plowed or mowed fields, as these activities create foraging opportunities for this species (Yosef 1996). Loggerhead shrike populations are declining, likely due to urbanization and loss of habitat and, to a lesser degree, pesticide use (Yosef 1996). This species has also shown a decline in undeveloped areas, which suggests that it is susceptible to habitat fragmentation (Unitt 2004). Non-native grasses and forbs introduced by livestock grazing pose the greatest threat to shrikes in sagebrush– steppe habitats (Shuford and Gardali 2008).

Loggerhead shrike was observed in tamarisk thickets on the Project Site and in common reed marsh and creosote bush scrub immediately adjacent to the Project Site on multiple survey visits: May 30, July 6, October 4, November 8, and December 16 and 17, 2018, and January 24, 2019. With the combination of dense patches of shrubs or trees and adjacent open areas, the Project Site and surrounding areas provide suitable breeding and foraging habitat for this species. Therefore, this species is likely a resident and has a high potential to nest within the Project Site.

Black-tailed Gnatcatcher (*Polioptila melanura*)

Black-tailed gnatcatcher is a CDFW watch list species (CDFW 2018c). This species is a fairly common resident in the lower Colorado River Valley (Small 1994). It is found in desert scrub, with a preference for well-vegetated desert washes, desert oases, and willow thickets along watercourses, but able to live far away from water sources (Unitt 2004; Small 1994). This species primarily eats insects, ranging from insect eggs and caterpillars to grasshoppers, and occasionally takes in fruit or seeds (Farquhar et al. 2002). Black-tailed gnatcatchers often pair bond for life and defend permanent territories. Breeding generally occurs from

March to June, although timing is heavily dependent on weather conditions and abundance of food (Unitt 2004). A pair will build their nest in dense shrubs to provide protection from direct sun and show a preference for spiny shrubs or trees (Unitt 2004; Small 1994). This species has a low tolerance for disturbance, typically avoiding urban areas and areas with non-native vegetation; is susceptible to brown-headed cowbird (*Molothrus ater*) nest parasitism; and is threatened by habitat loss due to over-pumping of groundwater (Unitt 2004; Small 1994).

Black-tailed gnatcatcher was detected during nearly every survey visit conducted in 2018 and 2019 and was typically observed in the creosote bush scrub and arrow weed thickets along the boundaries of the Project Site south of the Westside Main Canal, but occasionally in the western portion of the survey buffer north of the Westside Main Canal. The arrow weed thickets, fourwing saltbush scrub, tamarisk thickets, and creosote bush scrub within and adjacent to the Project Site provide suitable breeding and foraging habitat for this species. Based on the frequency of detection (detected during most surveys) this species was not mapped as they occurred at various locations within the Project site. Based on this frequency and presence of suitable habitat, this species has a high potential to nest within or adjacent to the Project Site.

LeConte's Thrasher (*Toxostoma lecontei*)

LeConte's thrasher is a CDFW species of special concern (CDFW 2018c). It is a permanent, but uncommon, resident in the San Joaquin Valley, Mojave and Colorado Deserts of California, the Sonoran Desert in Arizona, as well as Utah, Nevada, and Baja California, Mexico (Sheppard 1996). This sensitive bird requires undisturbed substrate for foraging under desert shrubs (Sheppard 1996). Ideal habitat throughout this species' range consists of sparsely vegetated desert flats, dunes, sandy alluvial fans below desert mountains, alkaline dry lakes, or gently rolling hills (Sheppard 1970). Dominant shrub species are saltbush (*Atriplex* spp.) not exceeding eight feet high and cholla (*Opuntia* spp.) ranging three to six feet high (Sheppard 1996). Creosote (*Larrea* sp.) may also be present, but the thrasher does not typically utilize this shrub species for shelter or nesting (Sheppard 1970, 1996). This bird also uses vegetated margins of large, rolling sand dunes, i.e., Algodones Dunes in Imperial County, California, and Scammon Lagoon, Baja California (Sheppard 1996). LeConte's thrasher feeds almost completely on arthropods and digs into the ground two to three inches with its bill. This insectivorous diet provides the only source of water for the thrasher. Generally, this species can be found mostly on the ground, running from shrub to shrub with its tail held high (Sheppard 1970). Destruction of substrate and shrubs, and extensive and repeated off-road use in the deserts are the primary threats to this species. Habitat conversion to agriculture is another major factor in reducing the amount of habitat available to this species and in isolating currently occupied area (Laudenslayer et al. 1992 as cited in Shuford and Gardali 2008). This species also suffers from shootings and livestock grazing, which denudes and decimates the vegetation (Sheppard 1996).

LeConte's thrasher was observed during the November and December 2018 survey visits in arrow weed thickets and fourwing saltbush scrub on the Project Site. Although this species is likely resident in the native desert scrub communities within and adjacent to the Project Site, it is unlikely to nest on the Project Site due to the lack of cactus and low number of thorny shrubs.

Abert's Towhee (*Melozone aberti*)

Abert's towhee lacks a state or federal listing or sensitivity status but is tracked by CDFW (i.e., is included in the Special Animal List), as it meets one or more of CDFW's conditions to be considered a species at risk (CDFW 2018c). This is a characteristic, resident, and territorial species of the Sonoran and Colorado deserts (Small 1994). Abert's towhee utilizes a variety of desert scrub communities but is often associated with streamside cottonwood-willow riparian forest and mesquite woodlands. However, this species has also shown an ability to acclimate to mixed native and non-native vegetation, as long as a sufficiently dense understory is present for nest placement (Tweit and Finch 1994). Abert's towhee primarily feeds on insects on the ground and occasionally consumes seeds. Habitat conversion to agriculture and urbanization has reduced the amount of habitat available to this species (Small 1994).

Abert's towhee was observed as a common species during the 2018 and 2019 surveys in the arrow weed thickets, fourwing saltbush scrub, and creosote bush scrub within and adjacent to the Project Site. Based on the frequency of detection, this species was not mapped. This species has a high potential to nest in the dense patches or stands of the communities listed above.

American Badger (*Taxidea taxus*)

American badger is a CDFW species of special concern (CDFW 2018c). American badgers are widespread, ranging from the Great Lakes to the Pacific Coast, and from the Canadian Prairie provinces to the Mexican Plateau. This species can be found in a variety of habitats, which include shrub steppes, agricultural fields, open woodland forests, and large grass and sagebrush meadows and valleys (Streubel 2000). Its breeding season occurs from mid- to late summer, after which egg implantation is delayed until December to February. A litter of two to five young are born between March and early April (Streubel 2000). American badger's diet consists of a variety of rodents, scorpions, insects, snakes, lizards, birds, and carrion. Declines in American badger populations and distribution have resulted from habitat fragmentation from urbanization and development of roads (Tremor et al. 2017).

One American badger was observed immediately south of the Project Site on July 6, 2019. American badger tracks were observed in the southwestern corner and western edge of the Project Site, south of the Westside Main Canal, during the same visit. At least one burrow, just outside the southwestern corner of the Project Site was of appropriate size to support this species. Although this species may avoid the more open upland mustard areas in the old agricultural fields, the Project Site and surrounding areas south of the Westside Main Canal provide suitable habitat for this species. South of the Westside Main Canal, the Project Site provides suitable open scrub vegetation, potential prey (e.g., ground squirrels, pocket gophers, lizards), and numerous existing burrows and soils capable of supporting new burrows. As individuals of this species maintain large home ranges, this species would require more land than is present on-site and potentially only forages on-site. However, the presence of existing burrows does indicate the potential for the Site to support breeding individuals.

3.4.3.6 Species with a Moderate to High Potential to Occur

Colorado Desert Fringe-toed Lizard (*Uma notata*)

Colorado Desert fringe-toed lizard is a CDFW species of special concern and a BLM sensitive species (CDFW 2018c). This species occurs from below sea level to 590 feet above sea level from the Salton Sea east into southwestern Arizona, and south into Baja California and Sonora, Mexico (Jennings and Hayes 1994; CDFW 2014b). It is primarily insectivorous, eating mostly ants, beetles, antlion larvae, hemipterans, grasshoppers, and caterpillars, but will also eat flowers, leaves, and seeds (CDFW 2014b). Fringe-toed lizards usually seek refuge from enemies by burrowing in the sand 5 to 6 centimeters (2 to 2.4 inches) deep. They also use rodent burrows and the bases of shrubs for cover and thermoregulation. Lizards usually hibernate in sand 30 centimeters (12 inches) deep, but juveniles and subadults may be found closer to the surface (CDFW 2014b).

This species has been reported within two miles of the Project Site (CDFW 2019a) and has a moderate potential to occur within the Project Site south of the Westside Main Canal. The creosote bush scrub and fourwing saltbush scrub adjacent to and in the western and southwestern portions of the Project Site, south of the Westside Main Canal, provide suitable habitat for this species due to the presence of small dunes and sandy hummocks.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

The southwestern willow flycatcher is federally, and state listed as endangered. This migratory bird breeds in southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, southwestern Colorado, and extreme northwestern Mexico (USFWS 2011).

The southwestern willow flycatcher's breeding season is from late mid-May to mid-July. For breeding and nesting activities this species requires mature, multi-tiered riparian woodland habitat with a high percentage of canopy cover where surface water is present, or soil moisture is high enough to support suitable tree species (Sogge et al. 2010). Nests are typically placed in trees where plant growth is most dense, where trees and shrubs have vegetation near ground level, and where there is a low-density native canopy. Although there are exceptions, generally flycatchers are found nesting in areas with willows, tamarisk, or both (USFWS 2011).

Southwestern willow flycatchers are extremely sensitive to human activity in riparian areas. Threats to this species include loss of riparian habitat due to urbanization, flood control, water diversion, grazing, and invasion of non-native species (Unitt 2004). Parasitism by brown-headed cowbirds (*Molothrus ater*) has been a significant factor in the decline of this species in California and Arizona and elsewhere (Sedgwick 2000). It should be noted that low cowbird parasitism rates, multi-tiered riparian woodland, and surface water are all important factors for the recovery of this species to be successful (Unitt 2004).

The arrow weed and tamarisk thickets within and adjacent to the Project Site are suitable as foraging habitat, so the Site has moderate potential to support foraging flycatchers during migration. However, the Project Site and surrounding areas lack suitable mature riparian habitat for breeding; thus, this species is not expected to breed on-site.

Pallid Bat (*Antrozous pallidus*)

Pallid bat is a CDFW species of concern and BLM sensitive species (CDFW 2018c). It is a locally common yearlong resident throughout most of California, except for high elevations in the Sierra Nevada. This bat occupies a variety of habitats including grasslands, shrublands, woodlands, and mixed conifer forests, and roosts in caves, crevices, or mines, which must be sufficiently large to provide refuge from high daytime temperatures (CDFW 2014c). Pallid bats may also roost in tree hollows and bark, and sometimes rodent burrows or dried mud (Tremor et al. 2017). This species feeds on large prey items such as beetles, grasshoppers, cicadas, spiders, scorpions, and Jerusalem crickets, as well as occasional small rodents and lizards, which it captures on the ground or on vegetation (Bat Conservation International 2011, Tremor et al. 2017). Pallid bats are very sensitive to disturbance of the roosting sites, as these roosts are crucial for metabolic economy and juvenile development. Population declines are generally attributable to loss of roost sites resulting from human intrusion and physical alteration (CDFW 2014c).

Pallid bat has a moderate potential to forage within the Project Site, as the creosote bush scrub, fourwing saltbush scrub, and active agricultural fields within and adjacent to the Project Site provide suitable foraging habitat. The tall eucalyptus, tamarisk, and palm trees within and adjacent to the Project Site are only marginally suitable as roost sites. However, the patchy nature of the mature trees that occur on and adjacent to the Project Site likely makes these trees less suitable as roost sites. Therefore, pallid bat has a low potential to roost on-site.

Yuma Hispid Cotton Rat (*Sigmodon hispidus eremicus*)

Yuma hispid cotton rat is a CDFW species of special concern (CDFW 2018c). Yuma hispid cotton rat occurs along the Colorado River and its range extends into agricultural areas of Imperial Valley as a result of irrigation infrastructure. This species occupies moist grassland, croplands, grass- or forb-dominated communities or understories, and brushy areas along the borders of fields. It has also been reported from

areas dominated by marsh plants, such as cattails, arrowed, and common reed. Its diet consists primarily of grasses, taking occasional insects and crops. Yuma hispid cotton rats are solitary, nocturnal, and diurnal, active year-round, and build nests of woven grass in burrows or on the ground (CDFW 2014d).

This species has been reported along the Westside Main Canal within two miles of the Project Site (CDFW 2019a) and has a moderate potential to occur within and adjacent to the Project Site. The combination of wetland communities along the Westside Main Canal, dense herbaceous cover within the fallow agriculture areas, and active agriculture within and adjacent to the Project Site may provide suitable habitat conditions for this species. This species would likely avoid the open areas of upland mustards and the drier scrub habitats in a majority of the Project Site, south of the Westside Main Canal, as they tend to prefer tall, dense grasses located closer to water sources.

3.4.3.7 Wildlife Movement

Linkages and corridors facilitate regional animal movement and are generally centered in or around waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Drainages generally serve as movement corridors because wildlife can move easily through these areas, and fresh water is available. Corridors also offer wildlife unobstructed terrain for foraging and for dispersal of young individuals.

As the movements of wildlife species are more intensively studied using radio-tracking devices, there is mounting evidence that some wildlife species do not necessarily restrict their movements to some obvious landscape element, such as a riparian corridor. For example, recent radio-tracking and tagging studies of Coast Range newts, California red-legged frogs, southwestern pond turtles, and two-striped garter snakes found that long-distance dispersal involved radial or perpendicular movements away from a water source with little regard to the orientation of the assumed riparian “movement corridor” (Hunt 1993; Rathbun et al. 1992; Bulger et al. 2002; Trentham 2002; Ramirez 2002, 2003a, 2003b). Likewise, carnivores do not necessarily use riparian corridors as movement corridors, frequently moving overland in a straight line between two points when traversing large distances (Newmark 1995; Beier 1993, 1995; Noss et al. 1996; Noss et al. no date). In general, the following corridor functions can be utilized when evaluating impacts to wildlife movement corridors:

- Movement corridors are physical connections that allow wildlife to move between patches of suitable habitat. Simberloff et al. (1992) and Beier and Loe (1992) correctly state that, for most species, we do not know what corridor traits (length, width, adjacent land use, etc.) are required for a corridor to be useful. But, as Beier and Loe (1992) also note, the critical features of a movement corridor may not be its physical traits but rather how well a particular piece of land fulfills several functions, including allowing dispersal, plant propagation, genetic interchange, and recolonization following local extirpation.

- Dispersal corridors are relatively narrow, linear landscape features embedded in a dissimilar matrix that links two or more areas of suitable habitat that would otherwise be fragmented and isolated from one another by rugged terrain, changes in vegetation, or human-altered environments. Corridors of habitat are essential to the local and regional population dynamics of a species because they provide physical links for genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities.

- Habitat linkages are broader connections between two or more habitat areas. This term is commonly used as a synonym for a wildlife corridor (Meffe and Carroll 1997). Habitat linkages may themselves serve as source areas for food, water, and cover, particularly for small- and medium-size animals.

- Travel routes are usually landscape features, such as ridgelines, drainages, canyons, or riparian corridors within larger natural habitat areas that are used frequently by animals to facilitate movement and provide access to water, food, cover, den sites, or other necessary resources. A travel route is generally preferred by a species because it provides the least amount of topographic resistance in moving from one area to another yet still provides adequate food, water, or cover (Meffe and Carroll 1997).

- Wildlife crossings are small, narrow areas of limited extent that allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways, pipelines, or other physical obstacles. Wildlife crossings often represent "choke points" along a movement corridor because useable habitat is physically constricted at the crossing by human-induced changes to the surrounding areas (Meffe and Carroll 1997).

3.4.3.8 Wildlife Movement in the Project Area

The Project Site lies adjacent to a large expanse of undeveloped desert in the Imperial Valley, which provides unconstrained habitat connectivity between the Salton Sea and the Gulf of California. The Imperial Valley is an important component of the Pacific Flyway, which is a major north-south passageway for migratory birds traveling from Alaska to Patagonia. The Salton Sea is known as a stopover for birds migrating along this flyway, hosting as many as 400 different species. The Project Site is situated approximately 25 miles south of the Salton Sea. While the Site functions as part of general habitat that provides for local movement of terrestrial wildlife, it does not act as a known corridor for any specific wildlife species.

3.4.4 Environmental Impacts

3.4.4.1 Thresholds of Significance

The Impact analysis provided below is based on Appendix G of the CEQA guidelines. The Project would result in a significant impact to biological resources if it would result in any of the following:

a) 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 regulated by the CDFW or USFWS?

b) 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?

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.4.4.2 Issues Scoped Out as Part of the Initial Study

None of the thresholds of significance, as listed above, were eliminated for further analysis in the Initial Study (Appendix A).

3.4.4.3 Methodology

Consistent with the requirements of CEQA the significance of potential impacts is evaluated through the application of the significance criteria described above. The objective of the biological resources analysis is to identify potential adverse effects and/or significant impacts on biological resources. While avoidance is the preferred approach for the management of biological resources it is not always possible to completely avoid impacts to biological resources. If impacts can be avoided through Project design, establishment of exclusion zones, or other means, then specific mitigation measures may be unnecessary. However, appropriate mitigation measures to avoid or minimize impacts are identified, as appropriate, including procedures to be followed if significant biological resources are discovered during construction.

Direct and Indirect Impacts

The CEQA Guidelines define direct impacts as those impacts that result from the Project and occur at the same time and place. These include but are not limited to the removal of vegetation, disturbance to wildlife from construction activities, or the crushing of burrows. Indirect impacts are caused by the Project but can occur later in time or are farther removed in distance while still reasonably foreseeable and related to the Project. Indirect impacts can include the disruption of the native seed bank, the spread of invasive plant species, alterations in light regimes (i.e., shade from buildings, solar modules), or changes to soil or hydrology that adversely effects native species over time, and the disruption of prey base or increased predation through alterations of the physical landscape from Project features (i.e., fencing, power poles, battery storage structures) that provide perch sites or shelter for predators. Indirect impacts may also include increased traffic and human disturbance.

Permanent and Temporary Impacts

Project impacts are generally considered permanent if they involve the conversion of land to a new use, such as with the construction of new roads or buildings and the foundations of batter storage structures. Temporary impacts are usually considered to be those activities that are of short duration (i.e., 6 to 12 months) and that do not result in a permanent land use conversion. Temporary Project impacts are those effects that include ground disturbance activities restricted solely to the construction phase, such as crushing or driving over vegetation, grading of temporary roads, and clearing vegetation within staging areas. These effects would be considered temporary provided the areas are subject to restoration at the conclusion of construction. Noise, human disturbance, vehicle traffic, and construction activities are also considered temporary impacts.

As described by the Applicant, construction of the Project would occur in multiple phases over a 10-year period. This would exceed the typical definition of temporary impacts as it relates to certain species of plants or wildlife. For example, construction activity that results in repeated disturbance to an area for a period of three years may result in permanent effects to plants or wildlife that are fragile, short lived, or have unique dispersal/nesting requirements. The Applicant has indicated that construction of Phase 1 of the Project will include the build out of all common Project facilities, roads, and a bridge. Subsequent phases would only require improvements such as additional substation equipment, water mains, and road extensions.

Operational Impacts

Operational impacts include both direct and indirect impacts to biological resources. Ongoing operations and maintenance impacts would occur during routine inspection and maintenance of the Project facilities and would include such activities as periodic maintenance and emergency repairs and routine inspection of Project facilities. Operational impacts would also include weed abatement activities including but not limited to mechanical removal, managed livestock grazing, or herbicide treatment. These impacts would remain an ongoing source of disturbance for many plants and wildlife species that occur within the fenced facility perimeter and in adjacent habitat.

Impacts of Proposed Mitigation

Mitigation measures proposed for the protection of biological resources may result in potential secondary impacts to other CEQA issues such as agricultural resources. For example, to mitigate habitat loss for special status species, restoration to natural conditions or limitations on use may be placed on agricultural lands resulting in reduced agricultural potential.

3.4.4.4 Project Impacts and Mitigation Measures

To determine potential impacts to biological resources, the impact significance criteria identified above were applied to construction, operation, and maintenance of the Project. Each impact is numbered as are applicable mitigation measures. Significance conclusions are presented for each identified impact, and applicable mitigation measures are identified for each of the impact statements.

a) 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 regulated by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Project would cause the loss of foraging habitat for common and/or special-status wildlife.

This region supports a broad diversity of both common and sensitive wildlife, many of which utilize the existing habitat in the Project area for foraging and other life history requirements including breeding, movement, and refugia. Some of these species are permanent residents such as the kit fox, American badger, burrowing owl, and Cooper's hawk. Other species including northern harrier and ferruginous hawk are winter residents that forage in the Project area. Direct impacts to foraging habitat would occur from construction and operation of the Project and the permanent conversion of open space from the placement of the battery facility structures, and roads. The Project's effect on individual species depends on many factors including how a species tolerates disturbance and the ability of a species to adapt to features such as the battery facility structures, access roads, noise from electrical transformers and periodic human presence. For some common species including rabbits, ground squirrels, and some birds, the Project would not lead to a substantial loss of foraging habitat and may in fact provide additional perches, refugia, and increased access to some prey. For example, Cooper's hawks, kestrels, and ravens may use the solar array structures and buildings for perches, while coyotes and kit foxes may use the solar arrays (if ground mounted) for cover. For other species, such as ferruginous hawks, construction of the Project would likely eliminate foraging opportunities. Impacts to foraging habitats for rodents or species with limited mobility would be high since their home ranges are small.

Indirect impacts to foraging habitat could include alterations to existing topographical and hydrological conditions, increased erosion and sediment transport, and the establishment of noxious weeds. Operational impacts include increased human presence and the spread of noxious weeds due to use of new or improved access roads. The Project Site is currently undeveloped and does not contain any sources of light or glare. Implementation of the Project would introduce new sources of illumination. Lighting from operation may

affect essential behavioral activities, physiology, population ecology, competition, and predation of both diurnal and nocturnal wildlife (Longcore and Rich 2004). Lighting may also increase the risk of predation of both nocturnal and diurnal species because they may be more detectable to nocturnal predators (USACE and CDFG 2010). Many insects are drawn to lights, and species that prey on insects, such as bats, may be attracted to lighted construction areas which would increase the potential for disturbance and mortality. However, studies have indicated that many small species, such as rodents, rabbits, snakes, and bats, actually forage less at high illumination levels (Longcore and Rich 2004). Overall, Project lighting would likely favor light-tolerant species over those that are dark-adapted (Longcore and Rich 2004).

Although the Project occurs within an area supporting large areas of open space not all these areas support the same types of habitat as the Project area and support different land use practices (i.e., agriculture, etc.). The Project would permanently impact approximately 144.51 acres and temporarily impact approximately 18.81 acres of native and non-native vegetation communities and land cover types. Therefore, while the overall loss of foraging habitat compared to available habitat in the region is low, Project-related impacts to foraging habitat for wildlife are considered significant without mitigation.

The primary mechanism for reducing impacts from habitat loss is the acquisition and preservation of mitigation lands and the reduction of indirect impacts such as the spread of weeds or degradation of habitat by fugitive dust or erosion. The measures presented in MM BR-1 include acquisition and preservation of mitigation lands and provisions that educate workers regarding the sensitivity of wildlife and how to minimize impacts to these species through Best Management Practices (BMPs), reduced vehicle speeds, and restoration of temporarily disturbed areas. Impacts would be less than significant with mitigation.

Mitigation Measures

MM BR-1: Compensation for Permanent and Temporary Impacts to Vegetative Communities

To compensate for permanent and temporary impacts to on-site vegetative communities, within the Project Site, habitat (which may include preservation areas within portions of the Project Site not impacted by construction or mitigation lands outside of the main Project Site) that contains the same quality of vegetative communities impacted by the Project and that is not already public land shall be preserved and managed in perpetuity at the following ratios – temporary impacts to native vegetation communities shall be mitigated at a 1:1 mitigation ratio (one acre preserved/restored for each acre impacted) and permanent impacts shall be mitigated at a ratio of 2:1. Impacts to CDFW listed sensitive or riparian communities shall be mitigated at a ratio of 3:1. Land acquired/dedicated for impacts to native vegetation communities must be with lands occupied by habitat of a similar type and quality.

Prior to the disturbance of vegetation, the Applicant shall obtain County approval of preserved and/or mitigation lands as well as documentation of a recorded conservation easement. The compensation for the loss of habitats may be achieved either by a) on-site habitat creation or enhancement habitats with similar species composition to those present prior to construction, b) off-site creation or enhancement of, or c) participation in an established mitigation bank program.

Prior to the removal of native vegetation, if on- or off-site mitigation is required, a Habitat Restoration Plan (HRP) shall be prepared that will guide all restoration and monitoring activities (refer to MM BR-2 for details on the plan requirements).

MM BR-2: Develop a Habitat Restoration Plan

The Applicant shall restore temporarily disturbed areas to pre-construction conditions or better prior to the issuance of a grading permit and removal of any vegetation and/or wetland habitat. To this end, the Applicant shall retain a County qualified biologist, knowledgeable in the area(s) of annual grassland and

wetland habitat restoration, to prepare a Habitat Restoration Plan (HRP). The Applicant shall submit the HRP to the County for approval (in consultation with CDFW and USFWS). The biologist will also be responsible for monitoring the implementation of the plan as well as the progress on achieving the established success criteria.

The HRP shall expressly identify the process by which all disturbed areas shall be restored to pre-construction conditions or better. The plan will address restoration and revegetation related to disturbance from construction. It will also address restoration and revegetation required after decommissioning of the Project should this be required. The decommissioning plan shall include, at a minimum, the following items:

a) Figures depicting areas proposed for temporary disturbance/mitigation lands – The HRP shall include detailed figures indicating the locations and vegetation types of areas proposed for temporary disturbance. These figures shall be updated, as necessary, to reflect current Site conditions should they change.

b) Proposed species for restoration/revegetation – The species palate proposed for restoration/revegetation shall include a combination of native annual and perennial species known to currently occur on the Project Site and in adjacent habitats.

c) Seed source and collection guidelines – Seeds shall first be collected from the stock of native plants occurring on the Project Site, during the appropriate collection period (late spring through the summer, depending on the species) and prior to disturbance from construction activities. Additional seed may be collected from stock within a 25-mile radius will be collected to maintain local genetic integrity. If seed collection from these areas is not possible then a seed source must be obtained from a local seed supplier familiar with native species. Seed will be limited to the species and quantity specified in the seed mix palette prepared for the Project. All seed will originate from the Project region, within +/- 1000 feet elevation of the Project Site. The seed supplier chosen will provide a list of three references with the bid proposal. The references will include year, contact names, and telephone numbers. Seeds will be tested for percent purity, percent germination, number of pure live seeds per pound, and weed seed content. Seed testing will be the responsibility of the seed supplier.

d) Planting methodology – A description of the preferred methods proposed for container plant installation or seeding shall be provided (e.g., hydroseeding, drill seeding, broadcast seeding, etc.). Additionally, a discussion on timing of seeding, type of irrigation system proposed, potential need of irrigation, type and duration of irrigation, and erosion controls proposed for revegetation activities shall be included.

e) Invasive, non-native vegetation Control – A comprehensive discussion on weed control for the Project Site will be developed and included in the HRP. This will serve to prevent the type conversion of natural habitats to those dominated by invasive species known to occur in the area.

f) Monitoring program – Areas subject to restoration/revegetation shall be monitored to assess conditions and to make recommendations for successful habitat establishment. Monitoring will be performed by a County qualified biologist(s), knowledge- able in the area of annual grassland habitat restoration. Monitoring should include, at a minimum, the following:

    1. **Qualitative Monitoring** – Qualitative monitoring surveys will be performed monthly in all restored/revegetated areas for the first year following planting in any phase of the Project. Qualitative monitoring will be on a quarterly schedule thereafter, until final completion approval of each restoration/revegetation area. Qualitative surveys will assess native plant species performance, including growth and survival, germination success, reproduction, plant fitness and health as well as pest or invasive plant problems. A County qualified wildlife biologist will assist in monitoring surveys and will actively search for mammal and other wildlife use.

Monitoring at this stage will indicate need for remediation or maintenance work well in advance of final success/failure determination. The monitoring reports will describe Site progress and conditions and list all observations pertinent to eventual success, and make recommendations as appropriate reg. remedial work, maintenance, etc.

2. **Quantitative Monitoring** – Quantitative monitoring will occur annually for years one to five or until the success criteria are met. Within each revegetation area, as shown figures referenced above, the biologist will collect data in a series of 1 m2 quadrats to estimate cover and density of each plant species within the revegetated areas. Data will be used to measure native species growth performance, to estimate native and non-native species coverage, seed mix germination, native species recruitment and reproduction, and species diversity. Additionally, within wetland habitat restoration areas, the biologist shall conduct sampling events to document the presence of hydric soil characteristics/indicators (if present). Based on these results, the biologist will make recommendations for maintenance or remedial work on the Site and for adjustments to the approved seed mix.

g) **Success criteria** – Criteria for successful restoration/revegetation of disturbed areas shall be provided.

h) **Reporting** – Reporting will include progress reports summarizing Site status and recommended remedial measures that will be submitted by the biologist to the County quarterly, with the exception of the Site visits immediately preceding the development of each annual status report (see below). Each progress report will list estimated species coverage and diversity, species health and overall vigor, the establishment of volunteer native species, topographical/soils conditions, problem weed species, the use of the Site by wildlife species, significant drought stress, and any recommended remedial measures deemed necessary to help ensure compliance with specified performance criteria.

One annual Site status report that summarizes Site conditions will be forwarded by the biologist to the County, the USFWS and the CDFW at the end of each year following implementation of this plan until the established success criteria have been met. Each annual report will list species coverage and diversity measured during yearly quantitative surveys, compliance/non-compliance with required performance standards, species health and overall vigor, the establishment of volunteer native species, hydrological and topographical conditions, the use of the Site by wildlife species, and the presence of invasive weed species. In the event of substantial non-compliance with the required performance criteria, the reports will include remedial measures deemed necessary to help ensure future compliance with specified performance criteria. Each annual report will include, at the minimum:

1. The name, title, and company of all persons involved in restoration monitoring and report preparation

2. Maps or aerials showing restoration areas, transect locations, and photo documentation locations

3. An explanation of the methods used to perform the work, including the number of acres treated for removal of non-native plants

4. An assessment of the treatment success.

Significance After Mitigation

Implementation of Mitigation Measures BR-1 and BR-2 would reduce potential impacts on foraging habitat to less-than-significant levels.

Project related construction activities would result in disturbance to wildlife and may result in wildlife mortality.

The Project Site supports a suite of common and sensitive wildlife species. Direct impacts to wildlife associated with construction of the Project could include mortality from trampling or crushing; increased noise levels due to heavy equipment use; light impacts from construction during low-light periods; increased vehicular and human presence along existing access roads; displacement due to habitat modifications, including vegetation removal, alterations of existing soil conditions; fugitive dust; and increased erosion and sediment transport.

Wildlife Mortality

Direct mortality of small mammals, reptiles, and other less mobile species would likely occur during construction of the Project. Construction could also result in the loss of eggs and nestlings of bird species with small, well-hidden nest. This would occur primarily during habitat clearing, earth removal, grading, digging, and equipment movement. More mobile species, such as birds and larger mammals, would likely disperse into nearby habitat areas during construction. Increased lighting during low-light periods, particularly near dawn and dusk (during both construction and operation of the Project), could cause some species to leave the area and could disrupt foraging, breeding, or other activities. Many insects are drawn to lights, and species that prey on insects, such as bats, may be attracted to lighted construction areas that would increase the potential for disturbance and mortality.

Noise and Vibration

Noise and vibration from clearing, grading and construction activities could affect wildlife in adjacent habitats by interfering with breeding or foraging activities and movement patterns, causing animals to temporarily avoid areas adjacent to the construction zone. Nocturnal wildlife would be affected less by construction than diurnal species since construction would occur primarily during daylight hours. However, construction may also occur during dusk and dawn when many species are highly active. More mobile species such as birds and larger mammals would likely disperse into adjacent habitat during the land clearing and grading phases and road construction. However, smaller animals would be less able to disperse. Construction activities would also likely affect how animals use the area as a movement corridor. Post construction, operation of the Project would limit wildlife movement to some degree; due to the presence of anthropogenic features (e.g., buildings, equipment, vehicles) that may result in increased noise and vibration during both construction and operation of the Project.

Noise from construction activities could also result in temporary impacts to thresholds in hearing sensitivity. These impacts could last for an extended period of time, and loss of hearing could result in increased mortality for species that rely on their sense of hearing to detect predators or warning calls. Noise and vibrations could also cause animals to leave their burrows, where they would be better protected from predation or Project-related injury or mortality.

Roads and Vehicles

Construction of access roads could crush existing burrows, disrupt soil surfaces, compact soils, and displace native species. With even modest soil moisture, vehicle traffic would quickly establish ruts or depressions that can alter soil conditions and hydrology. Where roads are planned the construction would alter the physical characteristics of the soil underneath the road. For example, road construction increases compaction up to 200 times relative to undisturbed sites (Riley 1984). Organisms that are not killed directly by the construction of the road could be displaced by the altered soil conditions (Haskell 2000). Construction traffic along access roads, particularly in areas used by nesting birds could adversely affect wildlife by disrupting breeding, foraging, and movement. These disturbances could result in nest, roost, or territory

abandonment and subsequent reproductive failure if these disturbances were to occur during the breeding season.

Roads and vehicle use can affect animal behavior by altering home range use, affect movement patterns, reduce reproductive success, alter escape response, and increase physiological stress (Trombulak and Frissell 2000). Roads and vehicle use can affect animal behavior by altering home range use, affect movement patterns, reduce reproductive success, alter escape response, and increase physiological stress (Trombulak and Frissell 2000). Edge effects from roads can last well past the time of construction. Given the lack of existing access roads currently within the Project area, the introduction of vehicles within the Project Site could result in an increase in accidental wildlife mortality from roadkill. Diurnal reptiles and small mammals such as flat tailed horned lizard, kit fox, and round-tailed ground squirrels are the most likely to be present on access roads and would therefore be more vulnerable to vehicle accidents. The likelihood of wildlife mortality due to vehicle collisions would be especially high during construction when the access roads would be heavily used. Vehicle accidents can significantly reduce population size (Trombulak and Frissell 2000). Furthermore, animals killed along access roads as a result of this Project could attract opportunistic predators, which could result in additional accidental mortality.

Indirect effects on wildlife as a result of the Project include the introduction of non-native, invasive plant species, alterations to existing hydrological conditions, and noise.

Operational impacts to wildlife would include mortality from vehicle strikes, disturbance from vegetation management activities, potential disruption of nest sites, noise from transformer or facility operations and lighting, human disturbance, and the spread of noxious weeds from maintenance personnel. For avian species, lighting plays a significant role in collision risk with poles and/or towers because lights can attract nocturnal migrant songbirds. Large numbers of bird deaths have been reported at lighted communication towers (Manville 2001), with most of these from towers higher than 300 to 500 feet (Kerlinger 2004). Increased lighting during low-light periods can cause some species to leave the area and can disrupt foraging, breeding, or other activities. Lighting may disturb the nighttime rest and sleep periods of diurnal species, including most passerine birds, causing them to abandon nests that are otherwise perfectly suitable (USACE and CDFG 2010). Nest site selection by some birds may also be affected by light, with nests being established farther from light sources (Longcore and Rich 2004).

Common Wildlife

Construction-related impacts on common wildlife are typically not considered significant under CEQA; impacts to some common wildlife (e.g., nesting birds) are considered significant may have regulatory implications under the Federal and State Endangered Species Acts. However, the large scale of the construction, multi-year schedule, and size of the land use conversion would result in potentially significant impacts on common species in the Project area.

Project related activities that would result in disturbance to wildlife or result in wildlife mortality would be considered significant absent mitigation.

Mitigation Measures

MM BR-3: Implement a Worker Environmental Education Program

Prior to any Project activities on the Site (i.e., surveying, mobilization, fencing, grading, or construction), a Worker Environmental Education Program (WEEP) shall be prepared and implemented by a qualified biologist(s). The WEEP shall be submitted to the County for review and approval prior to issuance of construction permits and implemented throughout the duration of the construction activities. The WEEP shall be put into action prior to the beginning of any Site related activities, including but not limited to those

activities listed above, and implemented throughout the duration of Project construction. The WEEP, shall include, at a minimum, the following items:

a) Training materials and briefings shall include, but not be limited to: a discussion of the Federal and State Endangered Species Acts, BGEPA, and the MBTA; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and significant natural plant community habitats; hazardous substance spill prevention and containment measures; a contact person and phone number in the event of the discovery of dead or injured wildlife; and a review of mitigation requirements.

b) A discussion of measures to be implemented for avoidance of the sensitive resources discussed above and the identification of an on-site contact in the event of the discovery of sensitive species on the Site.

c) Protocols to be followed when roadkill is encountered in the work area or along access roads to minimize potential for additional mortality of scavengers, including listed species such as the California condor and the identification of an on-site representative to whom the roadkill will be reported. Roadkill shall be reported to the appropriate local animal control agency within 24 hours.

d) Maps showing the known locations of special-status wildlife, populations of rare plants and sensitive vegetative communities, seasonal depressions and known waterbodies, wetland habitat, exclusion areas, and other construction limitations (e.g., limited operating periods, etc.). These features shall be included on the Project's plans and specifications drawings.

e) Literature and photographs or illustrations of potentially occurring special-status plant and/or wildlife species will be provided to all Project contractors and heavy equipment operators.

f) The Applicant shall provide to the County evidence that all on-site construction and security personnel have completed the WEEP prior to the start of Site mobilization. A special hardhat sticker or wallet size card shall be issued to all personnel completing the training, which shall be carried with the trained personnel at all times while on the Project Site. All new personnel shall receive this training and may work in the field for no more than five days without participating in the WEEP. A log of all personnel who have completed the WEEP training shall be kept on Site.

g) A weather protected bulletin board or binder shall be centrally placed or kept on-site (e.g., in the break room, construction foreman's vehicle, construction trailer, etc.) for the duration of the construction. This board or binder will provide key provisions of regulations or Project conditions as they relate to biological resources or as they apply to grading activities. This information shall be easily accessible for personnel in all active work areas.

h) Develop a standalone version of the WEEP, that covers all previously discussed items above, and that can be used as a reference for maintenance personnel during Project operations.

MM BR-4: Implementation of Best Management Practices

BMPs will be implemented as standard operating procedures during all ground disturbance, construction, and operation related activities to avoid or minimize Project impacts on biological resources. These BMPs will include but are not limited to the following:

a) Compliance with BMPs will be documented and provided to the County in a written report on an annual basis. The report shall include a summary of the construction activities completed, a review of the sensitive plants and wildlife encountered, a list of compliance actions and any remedial actions taken to correct the actions, and the status of ongoing mitigation efforts.

b) Prior to ground disturbance of any kind the Project work areas shall be clearly delineated by stakes, flags, or other clearly identifiable system.

c) Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.

d) Speed limit signs, imposing a speed limit of 15 miles per hour, will be installed throughout the Project Site prior to initiation of Site disturbance and/or construction. To minimize disturbance of areas outside of the construction zone, all Project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas will be included in preconstruction surveys and to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts. Off-road traffic outside of designated Project areas will be prohibited.

e) No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Spill kits shall be maintained on-site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials.

f) All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes, etc.) and other human-generated debris will be stored in animal proof containers and/or removed from the Site each day. No deliberate feeding of wildlife will be allowed.

g) All pipes and culverts with a diameter of greater than 4 inches shall be capped or taped closed. Prior to capping or taping the pipe/culvert shall be inspected for the presence of wildlife. If encountered the wildlife shall be allowed to escape unimpeded.

h) No firearms will be allowed on the Project Site, unless otherwise approved for security personnel.

i) To prevent harassment or mortality of listed, special-status species and common wildlife, or destruction of their habitats no domesticated animals of any kind shall be permitted in any Project area.

j) Use of chemicals, fuels, lubricants, or biocides will be in compliance with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. EPA, California Department of Food and Agriculture, and other state and federal legislation, as well as additional Project-related restrictions deemed necessary by the USFWS and CDFW. Use of rodenticides is restricted.

k) Any contractor or employee that inadvertently kills or injures a special-status animal, or finds one either dead, injured, or entrapped, will immediately report the incident to the on-site representative identified in the WEEP. The representative will contact the USFWS, CDFW, and County by telephone by the end of the day, or at the beginning of the next working day if the agency office is closed. In addition, formal notification shall be provided in writing within three working days of the incident or finding. Notification will include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured will be turned over immediately to CDFW for care, analysis, or disposition.

l) During the Site disturbance and/or construction phase, grading and construction activities before dawn and after dusk, is prohibited.

m) Avoidance and minimization of vegetation removal within active construction areas, including the flagging of sensitive vegetative communities or plants.

n) Avoidance and minimization of construction activities resulting in impacts to wetlands, streambeds, and banks of any ephemeral drainage unless permitted to do so.

o) All excavation, steep-walled holes, or trenches in excess of 6 inches in depth will be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to escape before construction activities are allowed to resume or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required).

p) New light sources will be minimized, and lighting will be designed (e.g., using down- cast lights) to limit the lighted area to the minimum necessary.

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

Prior to ground disturbance or vegetation clearing within the Project Site, a qualified biologist shall conduct surveys for wildlife (no more than 72 hours prior to Site disturbing activities) where suitable habitat is present and directly impacted by construction activities. Wildlife found within the Project Site or in areas potentially affected by the Project will be relocated to the nearest suitable habitat that will not be affected by the Project prior to the start of construction. Special-status species found within a Project impact area shall be relocated by an authorized biologist to suitable habitat outside the impact area.

MM BR-6: Implement Biological Construction Monitoring

Prior to the commencement of ground disturbance or Site mobilization activities the Applicant shall retain a qualified biologist(s), for the duration of Project construction, with demonstrated expertise with listed and/or special-status plants, terrestrial mammals, and reptiles to monitor(s), on a daily basis, all construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within, habitat that supports populations of the listed or special-status species identified within the Project boundaries. Any listed or special-status plants shall be flagged for avoidance. Any special-status terrestrial species found within a Project impact area shall be relocated by the authorized biologist and relocated to suitable habitat outside the impact area. If the installation of exclusion fencing is deemed necessary by the authorized biologist, the authorized biologist shall direct the installation of the fence. Clearance surveys for special-status species shall be conducted by the authorized biologist prior to the initiation of construction each day.

If the biological monitor observes a dead or injured listed or special-status wildlife species on the construction Site during construction, a written report shall be sent to the County, CDFW and/or USFWS within five calendar days. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). The biological monitor shall, immediately upon finding the remains, coordinate with the on-site construction foreman to discuss the events that caused the mortality (in known), and implement measures to prevent future incidents. Details of these measures shall be included with the report. Species remains shall be collected and frozen as soon as possible, and CDFW and/or USFWS shall be contacted regarding ultimate disposal of the remains.

MM BR-7: Conduct Pre-construction Surveys for Nesting and Breeding Birds and Implementation of Avoidance Measures

Prior to any Site disturbance (i.e., mobilization, staging, grading or construction), the Applicant shall retain a qualified biologist(s) to conduct pre-construction surveys for nesting birds within the recognized breeding season (generally February 15 – September 15 but may start earlier for some raptor species) in all areas within 500 feet of Project components (staging areas, substation sites, battery facility structures including,

solar arrays, and access road locations). The required survey dates may be modified based on local conditions, as determined by the qualified biologist(s), with the approval of the County, in consultation with the USFWS and/or CDFW. Measures intended to exclude nesting birds shall not be implemented without prior approval by the County in consultation with USFWS and/or CDFW and shall not exceed County noise standards.

If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300-foot buffer around the nest for ground-based construction activities and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails.

The prescribed buffers may be adjusted to reflect existing conditions including ambient noise, topography, and disturbance with the approval of the County, CDFW and USFWS as appropriate. The biological monitor(s) shall conduct regular monitoring of the nest to determine success/failure and to help ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. The biological monitor(s) shall be responsible for documenting the results of the surveys and ongoing monitoring and will provide a copy of the monitoring reports for impact areas to the respective agencies.

If for any reason a bird nest must be removed during the nesting season, the Applicant shall provide written documentation providing concurrence from the USFWS and CDFW authorizing the nest relocation. Additionally, the Applicant shall provide a written report documenting the relocation efforts. The report shall include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and whether the birds were accepted by the adopted parent.

Surveys shall be conducted to include all structural components, related structures, as well as all construction equipment. If birds are found to be nesting in battery facility structures, buffers as described above shall be implemented. If birds are found to be nesting in construction equipment, that equipment shall not be used until the young have fledged the nest or, if no young are present, until after the breeding season has passed.

If trees are to be removed as part of Project-related construction activities, they will be done so outside of the nesting season to avoid additional impacts to nesting raptors. If removal during the nesting season cannot be avoided, the biological monitor must confirm that the nest is vacant prior to its removal. If nests are found within these structures and contain eggs or young, the biological monitor shall allow no activities within a 300-foot buffer for nesting birds and/or a 500-foot buffer for raptors until the young have fledged the nest.

Significance After Mitigation

Implementation of MMs BR-1 through BR-7 would provide for the protection of common wildlife by educating workers on the avoidance mechanisms in place to avoid impacts to common and sensitive species or their habitat, restoring temporarily disturbed areas post construction, and acquiring off-site habitat. The measures would also include directives that educate workers regarding reduced vehicle speeds and general work practices that reduce conflicts with native species. Implementation of the mitigation measures above would reduce potential impacts on wildlife mortality to less-than-significant levels.

Corona noise and EMF could result in disturbance to wildlife.

High voltage electrical lines generate an audible noise called corona. Corona noise is generally characterized as a crackling, hissing, or humming sound and would be most noticeable during wet conductor conditions such as rain or fog. The existing audible noise from the Campo Verde-Imperial Valley

230 kV gen-tie line may be masked by the background noise such as, wind, vehicle use, and agricultural noise, which can often be much louder than corona noise, even in a relatively undisturbed area such as the Project Site. The Project will also include 35.4 kV collector lines; no notable noise would be expected from these lines. However, audible noise in the form of a hum could occur from the inverters.

While extensive information related to the effects of anthropogenic noise on wildlife is available in the literature, studies focused on corona noise are extremely limited. The lack of directed research or clear evidence becomes even more evident at the species level. Among the reasons for this lack of information appear to be a deficiency of reliable knowledge on long-term patterns of behaviors and auditory functions in many species as related to transmission lines. Although the specific effects of corona noise on wildlife are not clearly understood, it has been shown that population-level effects are more substantial when animals are exposed to sounds that repeatedly occur over extended periods of time as compared to noises resulting in one-time acute responses (OSB 2003). This is likely a result of sustained background noise reducing (masking) the detection and discrimination of communication signals. These signals may be important for mate attraction, social cohesion, predator avoidance, prey detection, navigation, and other basic behaviors. Masking may be one of the most significant effects of a general increase in background noise on most vertebrates (OSB 2003). For example, reproduction in many frog species is initiated when sexually mature males use vocalizations to advertise their sex, receptiveness, location, and species identity (Odendaal et al. 1986). Noisy environments can interfere with this communication process, and create problems with respect to detection, discrimination, and localization of appropriate signals (Wollerman 1998).

In some cases, species may adapt to alterations of the environmental soundscape, either through habituation or modifications in behavior. Habituation may occur if a stimulus occurs repeatedly without negative consequence and if the benefits, such as access to food, outweigh the costs of not reacting (OSB 2003 as in AMEC 2005). Brumm (2004) identified a modification in bird behavior as territorial males demonstrated singing with higher amplitudes to mitigate for masking noise in the natural environment. However, birds forced to sing with higher amplitudes must bear the increased costs of singing.

The Project transformers, substation, and switching stations would add noise and electromagnetic fields (EMF) to specific areas of the Project Site that may affect wildlife. These Project components would produce an audible hum detectable to wildlife. The effects of corona noise on wildlife are poorly understood, and, therefore, it is difficult to predict the degree to which the increase in corona noise will impact local wildlife. Because the facilities, including battery systems, solar arrays and the collector lines are not expected to produce an audible source of corona noise, these impacts are considered to be less than significant.

Construction and operational activities could result in the loss of nesting birds or raptors.

The Project Site provides foraging, cover, and/or breeding habitat for a variety of resident and migratory birds. This habitat is provided by a variety of topographical features and vegetation (including trees). During surveys of the Project Site, approximately 84 species of birds were documented within the Project Site and a 100-foot buffer (RECON 2021). Avian species commonly observed within or adjacent to the Project Site include Abert's towhee, Gambel's quail, rock dove, blue-gray gnatcatcher, black-tailed gnatcatcher, Anna's hummingbird, house finch, Say's phoebe, verdin, western meadowlark, and lesser goldfinch. Ferruginous hawk, a CDFW watch list species, is known to forage in the Project area, but is not expected to nest on the Project Site. Direct impacts to nesting birds include ground-disturbing activities associated with construction of the Project, including battery facility structures, solar array footing preparation, construction and grading of new access roads, increased noise levels from heavy equipment, increased human presence, and exposure to fugitive dust. Bird species potentially affected include ground nesting species such as horned larks, songbirds, and several large birds such as red-tailed hawk. Construction during the breeding season could result in the displacement of breeding birds and the abandonment of active nests.

Indirect impacts to nesting birds include facility maintenance, human disturbance, the spread of noxious weeds and disruption of breeding or foraging activity due to facility maintenance. Weed abatement and maintenance of the retention basins could also affect nesting.

Operational impacts to nesting birds pose a substantial concern for the Project. In the Project region and other ecosystems where nest substrate is often a limiting factor, birds will nest in a variety of manmade substrates including vehicles, debris piles, and other fixed structures. Some species of birds would likely nest in the Project Site during construction and operation of the facility. Depending on the species, birds may actively nest on the ground close to equipment, within the open metal framework of the solar array mounting structures, building frames, or even on idle construction equipment. In other arid ecosystems in southern California, birds have been documented nesting on vehicles, foundations, construction trailers, and other equipment left overnight or during a long weekend. In areas where construction may be phased (i.e., construction of various components such as piers and modules) birds may quickly utilize these features as nest site*s.* Many of the birds that would be likely to use these types of nesting substrates are common species such as ravens, house finches, and doves. However, with the exception of a few non-native birds such as European starling, the loss of active bird nests or young is regulated by the Federal MBTA and FGC Section 3503. Based on the observation of the nesting birds on and near the Project Site, there would be a moderate to high likelihood of encountering nesting birds during construction and operation of the Project. The loss of nesting birds or raptors as a result of the Project would be considered significant absent mitigation.

Mitigation Measures

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-8: Implement Avian Power Line Interaction Committee guidelines

The Applicant will be required to construct all transmission facilities, towers, poles, and lines in accordance with and comply with all policies set forth in the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC), to minimize avian electrocutions as a result of the construction of the Project. Details of design components shall be indicated on all construction plans and measures to comply with Avian Power Line Interaction Committee (APLIC) policies and guidelines shall be detailed in a separate attachment, all of which will be submitted with the construction permit application. The Applicant shall be required to monitor for new versions of the APLIC guidelines and update designs or implement new measures as needed during Project construction, provided these actions do not require the purchase of previously ordered transmission line structures. A review of compliance with submitted materials will be conducted prior to the final County inspection.

Significance After Mitigation

Implementation of the mitigation measures above would provide for the protection of nesting birds through worker education, pre-construction surveys for nesting birds, avoidance of active nest sites, construction monitoring, and the control of fugitive dust. These measures would also provide for the restoration of areas subject to temporary disturbance and manage the Site for noxious weeds. These measures would be effective, are typical of those required for other construction projects, and would provide for compliance

with the MBTA. Implementation of the mitigation measures above would reduce potential impacts on wildlife disturbance to less-than-significant levels.

The Project could disturb Endangered, Threatened, Proposed, Petitioned or Candidate plant species or their habitat.

No sensitive plant species were observed during the focused rare plant surveys or other biological surveys conducted in 2018 and 2019 in support of the Project; however, complete floristic surveys were not completed. No listed plant species were determined to have a moderate or high potential to occur within or adjacent to the Project Site (refer to Appendix E for additional information). The focused rare plant and other biological surveys conducted in 2018 and 2019 did however identify a broad diversity of flowering plants.

Although listed plant species were not detected on the Project Site, irregular plant life histories, and historic farming activities can limit the ability to detect listed plants. Botanical field surveys can only detect individual plants whose above-ground growth is large or conspicuous enough to be noted by field personnel. Even under ideal conditions, some living plants may not have emerged above-ground or may be too small for detection. These limitations are especially important for small or inconspicuous species. For example, although suitable habitat is found on the Site, slender cottonheads (*nemacaulis denudata* var*. gracilis*) was not observed during botanical surveys, which were conducted within its blooming period. However, it is an annual species, and it may only be observed in certain years when annual precipitation levels are appropriate.

If present, direct impacts to listed plant species could occur from construction activities that remove vegetation, grade soils, or cause sedimentation, including facility construction, solar array footing preparation (if ground mounted), and the construction/grading of new and existing access roads. Indirect impacts could include the disruption of native seed banks through soil alterations, the accumulation of fugitive dust, increased erosion and sediment transport, and the colonization of non-native, invasive plant species. Operational impacts could include trampling or crushing due to use of new or improved access roads, increased erosion, and the colonization and spread of noxious weeds. As described above for native vegetation, altered hydrologic and light regimes can also adversely affect listed plants should they occur.

It should be noted that the take of State listed species would be authorized only through an Incidental Take Authorization from CDFW. Take of Federally listed plants on private land would require coordination with the USFWS. If endangered, threatened, proposed, petitioned or candidate plant species plants are present, impacts to these species would be considered significant without mitigation.

Mitigation Measures

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-9: Conduct Pre-construction Surveys for State and Federally Threatened, Endangered, Proposed, Petitioned, and Candidate Plants and Implementation of Avoidance Measures

Prior to initial ground disturbance and for undisturbed areas in subsequent construction years, the Applicant shall conduct pre-construction surveys for State and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate plants in all areas subject to ground-disturbing activity, including, but

not limited to, battery facility structures including, access roads, poles/towers, solar array footing preparation, construction areas, and assembly yards. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist according to protocols established by the USFWS, CDFW, and CNPS. All listed plant species found shall be marked and avoided. Any populations of special-status plants found during surveys will be fully described, mapped, and a CNPS Field Survey Form or written equivalent shall be prepared.

These surveys must be accomplished during a year in which rainfall totals are at least 80 percent of average and in which the temporal distribution of rainfall is not highly abnormal (e.g., with most rainfall occurring very early or late in the season) to be reasonably certain of the presence/absence of rare plant species, unless surveys of reference populations document that precipitation conditions would not have adversely affected the ability to detect the species. This condition may be waived with the approval of the County after consultation with the CDFW and USFWS. If a listed plant species cannot be avoided, consultation with USFWS and CDFW will occur.

Prior to Site grading or vegetation removal, any populations of listed plant species identified during the surveys within the Project limits and beyond, shall be protected and a buffer zone placed around each population. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by a qualified plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the USFWS, CDFW, and County.

Where impacts to listed plants are determined to be unavoidable, the USFWS and/or CDFW shall be consulted for authorization. Additional mitigation measures to protect or restore listed plant species or their habitat, including but not limited to a salvage plan including seed collection and replanting, may be required by the USFWS or CDFW before impacts are authorized, whichever is appropriate.

MM BR-10: Compensate for Impacts to State and Federally Threatened, Endangered, Proposed, Petitioned, and Candidate Plants

To compensate for permanent impacts to State and Federally Threatened, Endangered, Proposed, Petitioned and Candidate plants, habitat (which may include preservation areas within the undisturbed areas of the Project footprint, mitigation lands outside of the main Project Site or a combination of both) that is not already public land shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted). Prior to the disturbance of habitat for or take of listed plant species the Applicant will be required to obtain County approval of preserved and/or mitigation lands as well as provide documentation of a recorded conservation easement(s). Compensation for temporary impacts shall include land acquisition and/or preservation at a 0.5:1 ratio. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and will contain verified extant populations, of the same size or greater, of the State or Federally listed plants that are impacted.

Habitat shall be preserved through the use of permanent open space easements. Mitigation lands cannot be located on land that is currently held publicly. Mitigation lands may include (depending on the habitat requirements of particular species):

- Areas outside the Project boundary, but within the general Project region.

- Preservation areas within portions of the Project Site that are at least 100 feet from Project components and are either (1) not permanently impacted by construction and operation of the Project, or (2) temporarily disturbed and then restored according to the requirements in Mitigation Measure BR-2; and

- Degraded areas (e.g., areas that have been actively dry-farmed) that are restored to high quality habitat through the implementation of a County-approved restoration plan.

Criteria for appropriate mitigation land are species-specific; the following factors must be considered in assessing the quality of potential mitigation habitat: (1) Current land use; (2) Location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to Project facilities or other potential sources of disturbance); (3) Vegetation composition and structure; (4) Slope; (5) Soil composition and drainage; and (6) Level of occupancy or use by relevant species.

The Applicant shall either provide open space easements or provide funds for the acquisition of such easements to a “qualified easement holder” (defined below). The CDFW is a qualified easement holder. To qualify as a “qualified easement holder” a private land trust must have the following:

- Substantial experience managing open space easements that are created to meet mitigation requirements for impacts to sensitive species

- Adopted the Land Trust Alliance’s *Standards and Practices*

- A stewardship endowment fund to pay for its perpetual stewardship obligations

The County shall determine whether a proposed easement holder meets these requirements.

The Applicant shall also be responsible for donating to the conservation easement holder fees sufficient to cover: (1) Administrative costs incurred in the creation of the conservation easement (appraisal, documenting baseline conditions, etc.) and (2) Funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the conservation easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the conservation easement holder in consultation with the County.

Open space easement(s) shall also be subject to the following conditions:

- The locations of acceptable easement(s) shall be developed with approval of CDFW and USFWS.

- The primary purpose of the easement(s) shall be conservation of impacted species and habitats, but the conservation easement(s) shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species.

Open space easement(s) shall:

- Be held in perpetuity by a qualified easement holder (defined above).

- Be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) Name CDFW or another organization to which the easement(s) will be conveyed if the original holder is dissolved.

- Be subject to the management requirements outlined in Mitigation Measure BR-2.

However, if lands acquired or protected for the compensation of permanent impacts to wildlife and/or vegetative communities (discussed above) contain similar sized populations of the impacted listed plant species, no further mitigation would be required.

Significance After Mitigation

The most effective mechanism for reducing impacts to sensitive plant species is to avoid or minimize on-site impacts. Currently, listed plant species have not been identified on the Project Site. However, because the expression of listed plants can be varied even in a good rain year it is possible that listed plants may be detected during the multi-year construction period. Therefore, the key mitigation strategy is to require the Applicant to conduct surveys and avoid populations of listed plants if detected. If the plants cannot be avoided the Applicant would be required to mitigate through the acquisition and protection of listed plant populations on private lands. This strategy would necessitate botanical surveys of proposed lands acquired as mitigation for various wildlife species if these lands are intended to serve mitigation sites for listed plants. The Applicant could also protect on-site populations provided they are protected through a conservation easement. The Applicant would be required to prepare and implement a habitat management plan to help ensure long-term conservation of these species. The goal of the surveys would be to identify at minimum the number of occurrences of each special-status species on off-site compensation lands as would be impacted by the Project. To the extent that off-site surveys document listed plant occurrences on lands to be set aside by the Applicant in perpetuity as habitat mitigation for sensitive wildlife species, then on-site mitigation requirements may be reduced. These measures coupled with general avoidance and worker education would provide an effective mitigation strategy to reduce impacts to listed plant species.

To reduce impacts of the Project on endangered, threatened, proposed, petitioned or candidate plant species or their habitat, mitigation measures have been identified and are listed above. Implementation of the mitigation measures above would reduce potential impacts on plant species to less-than-significant levels.

The Project could result in electrocution of State and/or federally protected birds.

Coopers hawks, ferruginous hawk, northern harrier, prairie falcon, and other large aerial perching birds would be susceptible to electrocution from the Project's electric power lines (i.e., distribution/collector) because of their size, presence in the Project area, and tendency to perch on tall structures that offer views of potential prey. Electrocution occurs when a perching bird simultaneously contacts two energized phase conductors or an energized conductor and grounded hardware, which can occur when horizontal separation is less than the wrist-to-wrist (flesh-to-flesh) distance of a bird's wingspan or where vertical separation is less than a bird's length from head-to-foot. Electrocution can also occur when birds perched side-by-side span the distance between these elements (APLIC 2006). Bird size and wingspan are provided in Table 3.4-4 below.

Table 3.4-4 Bird Size and Wingspan (in feet)

Species	Wingspan	Wrist-to-wrist length	Height
California Condor	9	N/A	4.2
Bald Eagle	8	2.8	2.3
Golden Eagle	7.5	3.5	2.2
Swainson's Hawk	4.5	N/A	1.3
Turkey Vulture	5.8	2	1.8
Red-tailed Hawk	4.7	1.9	1.8
Sand Hill Cranes	6	N/A	N/A

Source: APLIC 2006

All of these birds have wrist-to-wrist lengths that are long enough to simultaneously contact two energized phase conductors of the Project's collector lines. Should these birds perch on the steel/wooden poles or contact the lines, they have a potential for electrocution. If they were to roost communally, there is some potential that multiple birds would bridge the gap between two energized conductors. However, the likelihood of this happening would be low.

Impacts to Federally or State listed avian species from electrocution would be considered significant without mitigation.

Mitigation Measures

MM BR-8: Implement Avian Power Line Interaction Committee Guidelines

Significance After Mitigation

To reduce potential effects of the Project, mitigation will require that all transmission facilities be designed to be raptor-safe in accordance with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC). This includes placing bird flight diverters on small structures to reduce the potential for birds to perch on the poles. Implementation of the MM BR-8 would reduce potential impacts on Federally or State listed avian species to less-than-significant levels.

The Project could result in collision with overhead wires by State and/or federally protected birds.

Construction of the Project would require the placement of structures that would support the support conductors or collector lines that transport electricity to the substation. These features would pose a potential collision risk for birds. Birds are known to collide with communications towers, transmission lines, and other elevated structures. Estimates of the number of bird fatalities specifically attributable to interactions with utility structures vary considerably. Nationwide, it is estimated that as many as 175 million birds are lost annually to fatal collisions with transmission and distribution lines (Erickson et al. 2001). In California such collisions likely result in the deaths of hundreds of thousands of birds each year (Hunting 2002).

Avian interactions with transmission lines and structures and the risks those interactions impose vary greatly by location within the Project. Bird collisions with power lines generally occur when a power line or other aerial structure transects a daily flight path used by a concentration of birds, or migrants are traveling at reduced altitudes and encounter tall structures in their path (Brown 1993). Collisions are more probable near wetlands, valleys that are bisected by power lines, and within narrow passes where power lines run perpendicular to flight paths. Passerines (e.g., songbirds) and waterfowl (e.g., ducks) are known to collide with wires (APLIC 2006), particularly during nocturnal migrations or poor weather conditions (Avery et al. 1978). Larger birds, such as raptors, have higher collision potential than smaller birds due to flight patterns and willingness to fly during inclement weather (Avery et al. 1978).

It is generally expected that, without mitigation, collision mortality would occur to some degree and increase from baseline conditions due to the addition of new manmade objects in the Project area. However, the magnitude of that effect varies with the behavior and ecology of a particular species. Passerines and waterfowl have a lower potential for collisions than larger birds, such as raptors. Some behavioral factors contribute to a lower collision mortality rate for these birds. Passerines and waterfowl tend to fly under power lines, while larger species generally fly over lines and risk colliding with higher static lines. Also, many smaller birds tend to reduce their flight activity during poor weather conditions (Avery et al. 1978).

Based on the known distribution of the species in the Project area and observations made during reconnaissance surveys, it is generally expected that collision mortality would occur to some degree. To

reduce potential adverse effects to State and/or federally protected birds from collision with overhead wires, the Applicant would be required to construct the facility consistent with protection measures identified in APLIC guidelines. Because it is possible that the collector lines associated with the Project result in an increased collision risk the Applicant would construct in compliance with APLIC guidelines additional mitigation is warranted to monitor, identify, and correct facility components causing significant avian mortality. Impacts to Federally or State listed avian species from collision with overhead wires would be considered significant without mitigation.

Mitigation Measures

MM BR-8: Implement Avian Power Line Interaction Committee Guidelines

Significance After Mitigation

Implementation of the MM BR-8 would reduce potential impacts on Federally or State listed avian species to less-than-significant levels.

Glare from the reflection of sunlight off the solar modules could contribute to the risk of avian collision on the Project Site.

Solar facilities present a new and relatively un-researched risk for bird collisions. Though not physically imposing structures, the proposed solar arrays may pose some collision risk to birds if they are mounted on the rooftop. Depending on the time of day, use of the Site by various species, glare, or polarized light it is possible that birds will collide with the arrays. Operation of the solar modules could also cause an increase in Polarized Light Pollution (PLP), which occurs from light reflecting off dark colored anthropogenic structures. Additional causes of avian injuries and fatalities at larger commercial-scale solar projects resulting from the operations of solar facilities are continuing to be evaluated by the USFWS and CDFW. Though solar PV monitoring efforts are in their infancy, some studies suggest that the Project's PV panels may attract birds to the Project Site where they might mistake the reflective panels for a water body, known as the "lake effect" hypothesis (Roth 2016), and these birds could be at risk of collision with Project infrastructure. A USFWS summary of avian solar facility mortalities by Dietsch (2016) cited 3,545 bird deaths at seven Southern California solar farms from 2012 to April 2016, including the mortality of several special-status birds.

It should be kept in mind, however, that background avian mortalities in desert environments tend to be high due to the harsh conditions, and recent studies have indicated that when background mortality is properly considered, solar PV projects do not present a significant collision risk. For example, recent avian monitoring programs at the California Valley Solar Ranch (CVSR) and the Topaz Solar Farm in San Luis Obispo County have studied avian mortality events at solar facilities and off-site baseline study areas. During a 12-month period in 2014, H.T. Harvey and Associates recorded 368 avian mortalities at CVSR.

Kosciuch et al. (2020) analyzed avian fatality data from 13 studies at 10 PV solar sites in the Southwestern U.S. and calculated an average fatality estimate of 2.49 birds per MW per year. Kosciuch et al. (2020) found the species with the highest adjusted composition of fatalities among projects were widely distributed ground dwelling birds with large populations in the area where the studies occurred. Fatalities of water-obligate birds (species that cannot take-off from land including loons and grebes) were higher at PV solar sites near the Salton Sea, a known stop-over area (Kosciuch et al. 2020). However, no study that Kosciuch et al. (2020) reviewed investigated the potential cause of water-obligate mortality at PV solar.

Solar panels are only proposed to serve a portion of the Project's auxiliary power needs and would be BTM, and either ground-mounted or installed rooftops. Therefore, impacts to Federally or State listed avian species from collisions with solar modules would be considered less than significant.

Mitigation Measures

MM BR-8: Implement Avian Power Line Interaction Committee Guidelines

Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts on avian species to less-than-significant levels. Arrays of solar panel occupying large open areas are not proposed as part of the Project. Solar panels would either be ground-mounted or installed on the rooftops. Therefore, impacts to Federally or State listed avian species from collisions with solar modules would be considered less than significant.

The Project would result in the loss of Special-Status plant species.

No special-status plant species were observed during the focused rare plant surveys or other biological surveys conducted in 2018 and 2019 in support of the Project; complete floristic surveys were not completed. No special-status plant species were determined to have a moderate or high potential to occur within or adjacent to the Project Site (refer to Appendix E for additional information); all species known to occur in the area were not expected to occur or had a low potential of occurrence. The focused rare plant and other biological surveys conducted in 2018 and 2019 did however identify a broad diversity of flowering plants.

Botanical field surveys conducted for CEQA review cannot serve as formal censuses of Special-status plants. At best, a plant census in any given year can only provide the minimum number of living plants on the survey date. A census can only detect individual plants whose above-ground growth is large or conspicuous enough to be noted by field personnel. An ideally designed census would be scheduled at the height of the plant's growth season; use a technique to help ensure that field personnel walked transect lines close enough to every plant to assure its detection; and field personnel would be well-trained, well-rested, and would have consistently high mental and visual acuity throughout each field day and throughout the field survey period. Even under these ideal conditions, some living plants may not have emerged above-ground or may be too small for detection by field crews. However, based on the information obtained to date regarding the distribution of Special-status plants on the Project Site, a reasonable assessment of impacts can be evaluated.

Direct, indirect, and operational impacts to Special-status plant species, should they occur, would be the same as described for listed plant species (see Impact BR-5). These impacts include but are not limited to the direct removal of plants during the course of construction, the creation of conditions favorable to invasion of weedy exotic species, altered light and hydrologic regimes, and vegetation management.

Due to the lack of presence within the Project Site and the low potential for only a few species of CRPR of 3 and 4 special-status plants to occur, impacts of the Project (if they were to occur) are considered adverse but not significant and do not reach the threshold for significance under CEQA. Although impacts to these plants are not considered significant mitigation for other species including the acquisition of lands for impacts to wildlife species will reduce impacts to these species should they occur on the acquired parcels.

Impacts to special-status plant species with a CRPR of 1 or 2 would be considered significant without mitigation. Under Section 15380 of the CEQA guidelines, a species may be considered endangered, rare, or threatened, if it can be shown to meet the criteria for state or federal listing. "CEQA Section 15380 provides that a plant or animal species may be treated as 'rare or endangered' even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future."

Project related impacts that would result in the loss of more than 10 percent of the on-site population of any Special-Status plant species would require compensatory mitigation as described below under MM BR-12.

Mitigation Measures

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-11: Conduct Pre-construction Surveys for Special-Status Plants and Implement Avoidance Measures

Prior to initial ground disturbance and for undisturbed areas in subsequent construction years, the Applicant shall conduct pre-construction surveys for special-status plant species in all areas subject to ground-disturbing activity, including, but not limited to, battery facility structures including, access roads, poles/towers, solar array footing preparation, construction areas, and assembly yards. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist according to protocols established by the USFWS, CDFW, and CNPS. All listed plant species found shall be marked and avoided. Any populations of special-status plants found during surveys will be fully described, mapped, and a CNPS Field Survey Form or written equivalent shall be prepared.

These surveys must be accomplished during a year in which rainfall totals are at least 80 percent of average and in which the temporal distribution of rainfall is not highly abnormal (e.g., with most of the rainfall occurring very early or late in the season) to be reasonably certain of the presence/absence of rare plant species, unless surveys of reference populations document that precipitation conditions would not have adversely affected the detectability of the species.

Prior to Site grading, any populations of special-status plant species identified during the surveys shall be protected by a buffer zone. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by a qualified plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the USFWS, CDFW, and County. Highly visible flagging shall be placed along the buffer area and remain in good working order during the duration of any construction activities in the area. If Project related impacts result in the loss of more than 10 percent of the on-site population of any Special-Status plant species, compensatory mitigation will be required as described below.

MM BR-12: Compensate for Impacts to Special-Status Plant Species

If Project related impacts result in the loss of more than 10 percent of the on-site population of any Special-Status plant species, compensatory mitigation will be required. Prior to the disturbance of habitat for or take of Special-Status plants/populations, the Applicant must receive County approval of preserved and/or mitigation lands as well as present documentation of a recorded conservation easement(s). Compensation will be required for all impacts that exceed the 10 percent threshold (e.g., impacts to 15 percent of a population will only require compensation for 5 percent or the amount of impacts that exceed the 10 percent threshold). To compensate for permanent impacts to special-status plant species, habitat (which may include preservation of areas within the undisturbed areas of the Project footprint, mitigation lands outside of the main Project Site or a combination of both) that is not already public land shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted). Compensation

for temporary impacts shall include land acquisition and/or preservation at a 0.5:1 ratio. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and will contain verified extant populations, of the same size or greater, of the special-status plants that are impacted. Impacts could include direct impacts resulting from loss of habitat or indirect impacts if a significant population or portion thereof is unable to be avoided.

Habitat shall be preserved by using permanent open space easements. Mitigation lands cannot be located on land that is currently publicly held. Mitigation lands may include (depending on the habitat requirements of particular species) the following:

- Areas outside the Project boundary, but within the County
- Preservation areas within portions of the Project Site that are at least 100 feet from Project facilities and are either (1) not permanently impacted by construction and operation of the Project, or (2) are temporarily disturbed and then restored according to the requirements in Mitigation Measure BR-2
- Criteria for appropriate mitigation land are species-specific; however, the following factors must be considered in assessing the quality of potential mitigation habitat: (1) Current land use; (2) Location (e.g., habitat corridor, part of a large block of existing habitat, adjacency to source populations, proximity to Project facilities or other potential sources of disturbance); (3) Vegetation composition and structure; (4) Slope; (5) Soil composition and drainage; and (6) Level of occupancy or use by relevant species

The Applicant shall either provide open space easements or provide funds for the acquisition of open space easements to a “qualified easement holder” (defined below). CDFW is a qualified easement holder. To qualify as a “qualified easement holder” a private land trust must have the following:

- Substantial experience managing open space easements that are created to meet mitigation requirements for impacts to special status species
- Adopted the Land Trust Alliance’s *Standards and Practices*
- A stewardship endowment fund to pay for its perpetual stewardship obligations

The County shall determine whether a proposed easement holder meets these requirements.

The Applicant shall also be responsible for donating to the easement holder fees sufficient to cover: (1) Administrative costs incurred in the creation of the easement (appraisal, documenting baseline conditions, etc.) and (2) Funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the easement holder in consultation with the County.

Open space easement(s) shall also be subject to the following conditions:

- The locations of acceptable easement(s) shall be developed with approval of CDFW and USFWS
- The primary purpose of the easement(s) shall be conservation of impacted species and habitats, but the easement(s) shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species

Open space easement(s) shall:

- Be held in perpetuity by a qualified easement holder (defined above)

- Be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) Name CDFW or another organization to which the easement(s) will be conveyed if the original holder is dissolved

- Be subject to the management requirements outlined in Mitigation Measure BR-2

If lands acquired or protected for the compensation of permanent impacts to wildlife and/or vegetative communities contain similar sized populations of the impacted special-status plant species, of equal or greater habitat value, these mitigation lands may be used to achieve the required compensation ratios for special-status plant species.

Significance After Mitigation

The most effective mechanism for reducing impacts to special-status plant species is to avoid or minimize on-site impacts; no special-status species have been observed in the Project Site to date. If special-status plants were to occur, and avoidance was not possible, the key mitigation strategy that would be employed is to require the Applicant to mitigate through the acquisition and protection of special-status plant populations on acquired lands. The acquisition and protection of special-status plant occurrences at a minimum 1:1 ratio for permanent and a 0.5:1 ratio for temporary impacts would be a viable strategy to mitigate the Project's impacts to special-status plants.

Implementation of this strategy would necessitate botanical surveys of lands acquired as mitigation for wildlife species if these lands are intended to serve mitigation sites for special-status plants. The Applicant could also protect on-site populations provided they are protected through a conservation easement and provided with adequate buffers. The Applicant would also be required to prepare and implement a habitat management plan to help ensure long-term conservation of these species. The goal of the surveys would be to identify at minimum the number of occurrences of each special-status species on off-site compensation lands as would be impacted by the Project (as documented previously by the Applicant and by future pre-construction surveys). These measures coupled with general avoidance and worker education would provide an effective mitigation strategy to reduce impacts to sensitive plant species.

Implementation of the mitigation measures above would reduce potential impacts on special-status plant species to less-than-significant levels.

The Project could result in loss of American badger.

American badgers were observed adjacent to the Project Site and badger tracks were observed within the Project Site itself; the Project area supports suitable foraging and denning habitat for this species. Direct impacts to American badger include mechanical crushing of individuals or burrows by vehicles and construction equipment, noise, dust, and loss of habitat. Construction activities could also result in the disturbance of badger maternity dens during the pup-rearing season (15 February to 1 July). Because of the large size of the Project, numerous badgers may be affected. For example, depending on prey densities badgers home ranges can vary from 338 to 1,549 acres (Ziener et al. 1990). Their distribution in a landscape coincides with the availability of prey, burrowing sites, and mates, with males ranging wider than females during the breeding and summer months (Minta 1993).

Indirect impacts to badgers include alteration of soils, such as compaction that could preclude burrowing, alteration in prey base, and the spread of exotic weeds. Operational impacts include risk of roadkill on access roads by maintenance personnel, the spread of noxious weeds, and disturbance due to increased human presence. Impacts to American badger as a result of the Project would be considered significant absent mitigation.

Mitigation Measures

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-13: Complete Focused Pre-Construction Surveys for American Badger Surveys and Implementation of Avoidance Measures.

No more than 30 days prior to the commencement of construction activities, the Applicant shall retain a qualified biologist to conduct pre-construction surveys for American badger within suitable habitat on the Project Site. If present, occupied badger dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during pup-rearing season (15 February through 1 July) and a minimum 200-foot buffer established. The extent of buffers shall be flagged in the field utilizing a method highly visible by construction crews. Buffers may be modified with the concurrence of the CDFW. Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction to monitor for adequate protection of all identified dens and to help ensure that all flagging is kept in good working order.

If avoidance of a non-maternity den (impacts to maternity dens is not allowed) is not feasible, badgers shall be relocated by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (15 February through 1 July). Any passive relocation of badgers shall occur only after consultation with the CDFW and the biological monitor.

Prior to the final County inspection or occupancy, whichever comes first, a written report documenting all badger related activities (e.g., den flagging, monitoring, badger removal, etc.) shall be provided to the County. A copy of the report will also be provided to the CDFW.

Significance After Mitigation

Implementation of the mitigation measures above would reduce impacts to badgers through worker education, pre-construction surveys and avoidance of maternity dens, construction monitoring, and the control of fugitive dust. When required for construction the Applicant will passively relocate badgers out of the work area to reduce the potential for mortality. This includes monitoring active dens and collapsing the dens once the animal leaves the Site. However, badgers often retreat to burrows when alarmed and without active monitoring of a den it is difficult to ascertain the status of individual burrows. The proposed mitigation would require multiple days of monitoring and the use of cameras or a tracking medium to reduce the potential for entombment. These measures would also provide for the restoration of areas subject to temporary disturbance and manage the Site for noxious weeds. In addition, although not required for this species the acquisition of mitigation lands for other species would provide for the long-term conservation of habitat used by American badgers.

Implementation of the mitigation measures above would reduce potential impacts on American badgers to less than significant levels.

The Project could result in the loss of Colorado desert fringe-toed lizard.

Colorado Desert fringe-toed lizard, a CDFW species of special concern, while not detected within the Project Site has been reported within two miles of the Project Site and has a moderate potential to occur within the Project Site south of the Westside Main Canal.

Direct impacts include being hit by vehicles on access roads; mechanical crushing during grading or from vehicle travel, entombment; fugitive dust; and general disturbance due to increased human activity. Project implementation may result in permanent loss of habitat due to the placement of battery facility structures including, solar arrays, and access roads. Indirect impacts to these species include compaction of soils and the introduction of exotic plant species. Operational impacts include risk of mortality by vehicles and disturbance from routine maintenance. Other operational impacts include vegetation management activities. As with other small species the introduction of perch sites increases potential predation risks from aerial predators. Available perch sites, human activities, and the availability of prey items can lead to a substantial increase in the population of raptors and especially crows. Temporary and permanent habitat loss and the loss of individual animals would be considered significant without mitigation.

Mitigation Measures

MM BR-2: Develop a Habitat Mitigation and Restoration Plan

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

Significance After Mitigation

These small, difficult to detect species are often overlooked unless weather conditions are favorable. The implementation of these mitigation measures would provide for the protection of these species by educating workers as to the natural history of these species, identifying areas where construction would be avoided, conducting pre-construction surveys, and relocating detected species to pre-selected off-site locations, monitoring during construction to salvage wildlife, and restoring temporarily disturbed areas post construction. Although not proposed nor required as mitigation for impacts to these species, the acquisition of off-site habitat will help conserve lands where these species would be expected to occur.

Implementation of the mitigation measures listed above would reduce impacts to Colorado desert fringe-toed lizard to less-than-significant levels.

The Project could result in the loss of flat-tailed horned lizard.

Many occurrences of flat-tailed horned lizard have been reported in the undeveloped desert areas immediately west and south of the Project Site (CDFW 2019a), and horned lizard tracks were observed during 2018 surveys in the western portion of the Project Site, south of the Westside Main Canal. Given the cryptic nature and resulting difficulty of detection without focused surveys, these historical records are sufficient to assume this species is present in the creosote bush scrub and fourwing saltbush scrub within and adjacent to the Project Site.

The Project has the potential to directly impact approximately 54 acres of suitable and assumed-occupied habitat for the flat-tailed horned lizard. Direct impacts to individual lizards, if present on-site, would be considered significant and require mitigation. Direct impacts include being hit by vehicles on access roads; mechanical crushing during grading or from vehicle travel, entombment; fugitive dust; and general disturbance due to increased human activity. Project implementation may result in permanent loss of habitat

due to the placement of battery facility structures including, solar arrays, and access roads. Indirect impacts to these species include compaction of soils and the introduction of exotic plant species. Operational impacts include risk of mortality by vehicles and disturbance from routine maintenance. Other operational impacts include vegetation management activities. As with other small species the introduction of perch sites increases potential predation risks from aerial predators. Available perch sites, human activities, and the availability of prey items can lead to a substantial increase in the population of raptors and especially crows. Temporary and permanent habitat loss and the loss of individual animals would be considered significant without mitigation.

Mitigation Measures

MM BR-2: Develop a Habitat Mitigation and Restoration Plan

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-14: Pre-Construction Surveys and Avoidance/Relocation Measures for Flat-tailed Horned Lizard

Focused pre-construction surveys shall be conducted for flat-tailed horned lizard. During construction, areas of active surface disturbance shall be surveyed periodically, at least hourly, when surface temperatures exceed 29°C (85°F) for the presence of flat-tailed horned lizard. Flat-tailed horned lizards would be removed from harm's way during construction activities by the on-site biological monitor(s). To the extent feasible, methods to find flat-tailed horned lizards would be designed to achieve a maximal capture rate and would include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort would be 30 minutes per 0.40 hectare (one acre). Persons that handle flat-tailed horned lizards would first obtain all necessary permits and authorization from the CDFW. A Horned Lizard Observation Data Sheet and a Project Reporting Form, per Appendix 8 of the Rangewide Management Strategy, would also need to be completed. During construction, quarterly reports describing flat-tailed horned lizards removal activity would be submitted to the USFWS, CDFW, and the County.

The removal of flat-tailed horned lizard out of harm's way would include relocation to nearby suitable habitat in low-impact areas of the Yuba Management Area, which is located to the west and south of the Project Site. Relocated flat-tailed horned lizards would be placed in the shade of a large shrub in undisturbed habitat. If surface temperatures in the sun are less than 24°C (75°F) or exceed 38°C (100°F), a qualified biologist, if authorized, would hold the flat- tailed horned lizard for later release. Initially, captured flat-tailed horned lizards would be held in a cloth bag, cooler, or other appropriate clean, dry container from which the lizard cannot escape. Lizards would be held at temperatures between 75°F and 90°F and would not be exposed to direct sunlight. Release would occur as soon as possible after capture and during daylight hours. The qualified biologist would be allowed some judgment and discretion when relocating lizards to maximize survival of flat-tailed horned lizards found in the Project area.

- To the maximum extent practicable, grading in flat-tailed horned lizard habitat would be conducted during the active season, which is defined as March 1 through September 30, or when ground temperatures are between 24°C (75°F) and 38°C (100°F). If grading cannot be conducted during this time, any flat-tailed horned lizards found would be removed to low-impact areas (see above) where suitable burrowing habitat exists, (e.g., sandy substrates and shrub cover).

MM BR-15: Compensation for Impacts to Flat-Tailed Horned Lizard

Pursuant to Title 43 CFR and the Federal Land Policy and Management Act of 1976, federal land management agencies may permit actions that result in flat-tailed horned lizard habitat loss on their lands; however, for losses both within and outside the Management Areas, compensation is charged if residual effects would occur after all reasonable on-site mitigation has been applied. The goal of compensation is to prevent the net loss of flat-tailed horned lizard habitat and make the net effect of a project neutral or positive to flat-tailed horned lizards by maintaining a habitat base for flat-tailed horned lizards. To achieve this goal, compensation will be based on the acreage of flat-tailed horned lizard habitat lost after all reasonable on-site mitigation has been applied at a 1:1 ratio for habitat lost outside a flat-tailed horned lizard Management Area. For this Project, compensation will be required for a loss of approximately 54 acres of flat-tailed horned lizard habitat.

MM BR-16: Develop a Habitat Mitigation and Monitoring Plan

To help ensure the success of on-site preserved land and acquired mitigation lands, required for compensation of permanent impacts to vegetative communities and listed or special-status plants and wildlife, the Applicant shall retain a qualified biologist to prepare a Habitat Monitoring and Mitigation Plan (HMMP). The HMMP will be submitted to the County for approval, prior to the issuance of a construction permit. Prior to the final County inspection final impact acreages must be presented to the County and acquisition of off-site lands must be verified. The HMMP will include, at a minimum, the following information:

a) Summary of anticipated habitat impacts and the proposed mitigation.

b) Detailed description of the location and boundaries of undisturbed Project areas proposed for preservation, off-site mitigation lands and a description of existing site-wide conditions. The HMMP shall include detailed analysis showing that the mitigation lands meet the performance criteria outlined in MM BR-2 (Develop a Habitat Restoration Plan) and MM BR-15 (Compensate for Impacts to Flat-Tailed Horned Lizard).

c) Discussion of measures to be undertaken to enhance (e.g., through focused management) the on-site preserved habitat and off-site mitigation lands for listed and special-status species.

d) Description of management and maintenance measures (e.g., vegetation management, fencing maintenance, etc.).

e) Discussion of habitat and species monitoring measures for on-site preservation areas and off-site mitigation lands, including specific, objectives, performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.

f) Development of a monitoring strategy for the monitoring of indirect impacts to vegetation and wildlife from alteration to the solar and hydric regimes as a result of Project facilities.

g) Development of a monitoring strategy, which shall serve to document the persistence of flat-tailed horned lizard populations within the Project Site and on mitigation lands. This monitoring will be conducted for a minimum of 5 years after the completion of construction activities. The strategy should include, at the minimum, the following:

    1. Documentation of pre-Project population levels for the species noted above, based on results of focused pre-construction surveys and previously supplied Applicant data.

    2. On-going monitoring of species populations upon completion of construction activities, while the Project is in operation, for a minimum of three years.

3. Monitoring of reference populations for this species in areas that contain undisturbed habitat, such as the Yuba Management Area.

4. An analysis of the comparison of percent changes in population levels at the Project and reference sites to be used in the determination of additional compensatory mitigation.

5. The applicant shall prepare a contingency plan for mitigation elements that do not meet performance or final success criteria within 5 years. This plan will include specific triggers for remediation if performance criteria are not being met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) will occur.

Significance After Mitigation

These small, sometimes difficult to detect species are often overlooked unless weather conditions are favorable. The implementation of these mitigation measures would provide for the protection of these species by educating workers as to the natural history of these species, identifying areas where construction would be avoided, conducting pre-construction surveys, and relocating detected species to pre-selected off-site locations, monitoring during construction to salvage wildlife, and restoring temporarily disturbed areas post construction. Although not proposed nor required as mitigation for impacts to these species, the acquisition of off-site habitat will help conserve lands where these species would be expected to occur.

Implementation of the mitigation measures listed above would reduce impacts to the flat-tailed horned lizard to less-than-significant levels.

The Project would result in the loss of burrowing owl.

No burrowing owls were observed on the Project Site during the 2018 breeding season surveys, but four burrowing owl observations were recorded within the Project Site during the 2018-2019 non- breeding season surveys. These observations indicate that at least two, but likely three, individuals, appear to use the Project Site and surrounding areas as a wintering site or for migration and dispersal, but do not currently use the Site as breeding habitat.

Construction of the Project would affect foraging, wintering and breeding habitat for this species. The potential effects of the Project on burrowing owls depend on many factors including the number of owls present in the Project footprint and how the species utilizes the area (i.e., migratory stopover, year-round, breeding, or wintering). Direct impacts to burrowing owls would include the crushing of burrows, removal or disturbance of vegetation, increased noise levels from heavy equipment, increased human presence, and exposure to fugitive dust. Indirect impacts could include the loss of habitat due to the colonization of noxious weeds, plant community shifts associated with increased soil moisture, long term human presence associated with the multi-year construction schedule, vegetation management activities and the degradation of foraging habitat. Operational impacts include increased human presence from maintenance personnel that would flush or otherwise disturb burrowing owls, weed control, and use of access roads.

If burrowing owls are present within or adjacent to a construction zone, disturbance could destroy occupied burrows or cause the owls to abandon burrows. Construction during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The loss of occupied burrowing owl habitat (habitat known to have been occupied by owls during nesting season within the past three years) or reductions in the number of this rare species, directly or indirectly through nest abandonment or reproductive suppression, would constitute an adverse impact. Furthermore, raptors, including owls and their nests, are protected under both federal and State laws and regulations, including the MBTA and California FGC Section 3503.5.

Mitigation Measures

MM BR-2: Develop a Habitat Mitigation and Restoration Plan

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-16: Develop a Habitat Mitigation and Monitoring Plan

MM BR-17: Burrowing Owl Protection Measures

The following measures shall be implemented during Project construction, operation, and decommissioning with respect to burrowing owls:

- A qualified biologist(s) shall be on-site during all construction activities in suitable burrowing owl habitat. A qualified biologist (i.e., a biologist with previous burrowing owl survey experience) shall conduct pre-construction clearance surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows no more than 14 days prior to construction. The survey methodology shall be consistent with the methods outlined in the CDFG Staff Report (CDFG 2012). Copies of the survey results shall be submitted to CDFW and the County.

- If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or facility construction, shall be permitted except in accordance with the staff report or by written authorization of CDFW staff. Burrowing owls shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the lead biologist and approved by the applicable local CDFW office and submitted to the County. The plan shall adhere to the requirements set forth in the Burrowing Owl Mitigation Staff Report (CDFW 2012).

- In accordance with the Burrowing Owl Exclusion Plan, a qualified biologist shall excavate burrows using hand tools. Sections of flexible plastic pipe or burlap bag shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation.

- During construction activities, monthly and final compliance reports shall be provided to CDFW, the County, and other applicable resource agencies documenting the effectiveness of mitigation measures and the level of burrowing owl take associated with the Project.

MM BR-18: Compensation for Impacts to Burrowing Owl

Should burrowing owls be found on-site, compensatory mitigation for lost breeding or wintering habitat shall be implemented on-site or off-site in accordance with Burrowing Owl Mitigation Staff Report guidance and in consultation with CDFW. At a minimum, the following recommendations shall be implemented:

- Temporarily disturbed habitat shall be restored, if feasible, to pre-Project conditions, including decompaction soil and revegetating.

- Permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows, and burrowing owl impacted are replaced at a 1:1 ratio based on a site-specific analysis that shall include the following:

- Permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and nonbreeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.

- Permanently protect mitigation lands through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. If the Project is located within the service area of a CDFW-approved burrowing owl conservation bank, the applicant may purchase available burrowing owl conservation bank.

If the acquired lands or mitigation credits for other wildlife species or vegetation communities can be managed to support burrowing owl, the proposed mitigation lands could be aggregated so that the purchase of mitigation lands for one species could cover all or a portion of the mitigation requirements for the remaining species. Mitigation lands shall not already be public land.

Significance After Mitigation

To avoid potential impacts to burrowing owls that might be nesting or residing within burrows in the Project impact area, the proposed measures include the completion of pre-construction surveys of the Site using established protocols. If present, the applicant would establish a buffer and avoid active nests during the breeding season. If owls are detected using a burrow outside the breeding season the owls may be passively displaced pending the establishment of artificial burrows and the acquisition of adequate mitigation lands. As described above the strategy for displacing owls depends greatly on how the owls are using the Site, their number, and the timing of construction activities. Because Project construction would occur over multiple years and result in the land use conversion of approximately 145 acres of habitat; passive relocation may result in the repeated harassment of resident owls. While construction of replacement burrows in off-site areas and the acquisition of mitigation lands would reduce impacts and be considered to mitigate Project impacts to the species, it is likely that owls would occupy areas close to known territories. Because of the extended construction schedule this could require multiple passive relocation events for the same owls. Each of these events stresses the bird and exposes the owls to predation, thermal stress, and potential territorial disputes.

There is much debate among state, federal, local, and private entities over the most practicable and successful relocation/translocation methods for burrowing owl. When passive relocation is used solely as an impact avoidance measure, it is generally only effective when burrowing owl nesting territories are directly adjacent to permanently protected lands (i.e., military reservation, airport, wildlife reserve, agricultural reserve with appropriate crop type such as alfalfa) (Bloom 2003). Conversely, active translocation of owls involves trapping owls, temporarily holding them in enclosures with supplemental feeding, and releasing at a suitable off-site location with existing or artificial burrows prior to breeding.

While active translocation might be a better solution than passive relocation for moving owls from large sites, California FGC 3503.3 prohibits the active relocation of burrowing owls. Therefore, only the passive relocation of owls shall occur, if required, utilizing the methods detailed in MM BR-16. Along with the potential passive relocation of owls, implementation of the proposed mitigation measures would provide mitigation lands and avoid nesting birds. These measures would provide a reasonably effective mechanism for reducing impacts of the Project.

Implementation of the mitigation measures listed above would reduce impacts to the burrowing owl to less-than-significant levels.

The Project could result in transmission line strikes by special-status bat species.

Several species of bats are known to occur in the Project area. Although many studies have quantified bird strikes with transmission lines, analogous information on bats is very limited (Manville 2005). Collisions with distribution and transmission lines will likely occur to some degree however collision risk is not thought to pose a significant risk to bats in the Project area. The most likely collision risk for bats is associated with vehicle or equipment as bats forage near roads or work areas.

Given that most bat species can use echolocation to discriminate objects as small as 0.4 to 0.004 inch in size (Vaughan and Vaughan 1986), and the size of guard lines and transmission lines are typically equal to or greater than 0.5 inch in diameter, the frequency of transmission line strikes is expected to be extremely low. The number of fatal strikes is expected to be insufficient to substantially reduce the population of this species.

Project impacts resulting in collision with the collection or transmission line by special-status bat species are expected to be adverse but less than significant.

b) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Construction and operational activities would result in temporary and permanent losses of sensitive vegetation communities and riparian habitat.

Construction and implementation of the Project would result in direct and indirect impacts to native and non-native vegetation communities and other land cover types (refer to Table 3.4-5 for additional information. This includes approximately 6.87 acres of permanent and temporary impacts to arrow weed thickets, a CDFW sensitive riparian community. Riparian communities that would be impacted by the Project Site include tamarisk thickets (5.26 acres), quailbush scrub (2.15 acres), cattail marshes (0.14 acre), and common reed marshes (0.04 acre).

Table 3.4-5 Project Impacts to Vegetation Communities/Land Cover Types

Vegetation Community/ Land Cover Type	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts
Upland mustard	73.45	1.24	74.70
Fourwing saltbush scrub	47.72	0.01	47.74
Fallow agriculture	4.02	9.54	13.56
Arrow weed thickets	**6.02**	**0.85**	**6.87**
Creosote bush scrub	6.24	0.19	6.43
Disturbed habitat	1.81	3.96	5.77
Tamarisk thickets	**4.73**	**0.53**	**5.26**
Quailbush scrub	**0.34**	**1.81**	**2.15**
Eucalyptus groves	0.04	0.54	0.58
Cattail marshes	**0.00**	**0.14**	**0.14**
Open water	0.00	0.10	0.10
Common reed marshes	**0.04**	**0.00**	**0.04**
Developed land	0.00	0.00	0.00
Total	**144.51***	**18.81***	**163.32***

Vegetation Community/ Land Cover Type	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts

*Total acreage varies from sum of cells due to rounding.
Bold entries denote riparian communities/land cover types, **bold and *Italicized*** entries denote California Department of Fish and Wildlife listed sensitive riparian communities/land cover types

Riparian habitats are biologically productive and diverse and are the exclusive habitat of several threatened or endangered wildlife species and many other special-status species. Riparian and wetland habitats are highly productive ecosystems that also provide drinking water sources and foraging, nesting, and cover habitat for a diverse assemblage of wildlife species, both within the riparian habitats and adjacent upland habitats. Many wildlife species are wholly dependent on riparian habitats throughout their life cycles, and many others use riparian habitats only during certain seasons or life history phases. For example, certain mammals require drinking water or cool shaded cover during summer but otherwise may live in upland habitats. Numerous amphibians breed in aquatic habitats but spend most of their lives in uplands.

Direct impacts to native and non-native vegetation communities, including one CDFW listed sensitive riparian community and four other riparian communities, would occur as a result of grading during construction activities and construction of permanent Project facilities. Indirect impacts could include alterations in existing light, topography, and hydrology regimes, sedimentation and erosion, soil compaction, the accumulation of fugitive dust, disruptions to native seed banks from ground disturbance, and the colonization of non-native, invasive plant species. These actions may result in reduced habitat quality for native plants. In addition, the removal of vegetation and the disruption of soil crusts create possibilities for erosion, dust, and weed invasion that can affect habitat in adjacent areas.

Operational impacts would also occur during routine inspection and maintenance of Project facilities. These impacts would include, but are not limited to, trampling or crushing of native vegetation by vehicular or foot traffic, alterations in topography and hydrology, increased erosion and sedimentation, and the introduction of non-native, invasive plants due to increased human presence.

Because of the functional role that the on-site native plant communities play in the ecology of listed species, construction activities that result in the loss of these communities would be considered significant without mitigation.

Mitigation Measures

MM BR-2: Develop a Habitat Mitigation and Restoration Plan

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MM BR-6: Implement Biological Construction Monitoring

MM BR-16: Develop a Habitat Mitigation and Monitoring Plan

Significance After Mitigation

Restoration of temporarily disturbed areas and acquisition of off-site habitat are the primary mechanisms for reducing impacts to vegetation communities, including sensitive communities. The preservation and management of off-site habitats would functionally replace lost habitat values from Project development. Implementation of the mitigation measures listed above would reduce impacts to riparian habitat to less-than-significant levels.

c) 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, filling, hydrological interruption, or other means?

The Project would result in the loss of jurisdictional wetland habitats.

A routine jurisdictional waters/wetland delineation, following the guidelines set forth by the USACE (1987 and 2008), was performed by the applicant to gather field data at locations with potential jurisdictional waters in the Project area and within a 100-foot buffer. The Project would impact all delineated jurisdictional waters mapped within the Site; refer to Table 3.4-6 for details on impacted features. A total of 6.75 acres would be permanently impacted and 2.68 acres would be temporarily impacted. This comprises 9.22 acres of CDFW/RWQCB wetland waters of the state and 0.21 acre of USACE jurisdictional non-wetland water and CDFW streambed/RWQCB WOTS. Approximately 0.10 acre of open water within the Westside Main Canal would be spanned with a bridge.

Table 3.4-6 Impacts to Jurisdictional Waters

Jurisdictional Waters Type	Permanent Impacts	Temporary Impacts	Total Impacts
U.S. Army Corps of Engineers total jurisdictional waters (section 404 permit)	0.04	0.16[a]	0.21[b]
Non-wetland waters of the U.S.	6.75	2.68[b]	9.43[b]
California Department of Fish and Wildlife (section 1602 permit) and Regional Water Quality Control Board (section 401 certification) total jurisdictional waters[c]	6.71	2.51	9.22
Wetland waters of the state	0.04	0.16[1]	0.21[b]
Streambed	0.04	0.16[1]	0.21[b]

Notes:
a) Approximately 0.10 acre of open water within the Westside Main Canal would be spanned with a bridge. This is illustrated as a permanent impact but given the fact that there would be no direct impact to the Westside Main Canal, this is included within the temporary impacts.
b) Total acreage varies from sum of cells due to rounding.
c) CDFW/RWQCB area of jurisdiction includes all USACE jurisdictional waters.

Direct impacts to jurisdictional habitats could include the removal of native vegetation, the discharge of fill, degradation of water quality, and increased erosion and sediment transport. Because the area is generally dry for most of the year (not including the canals) and potential water quality impacts would be attenuated. Most of these impacts would occur during the use of access roads by heavy equipment and vehicle passage where jurisdictional waters traverse access roads. Indirect impacts could include alterations to the existing topographical and hydrological conditions and the introduction of non-native, invasive plant species.

In arid regions ephemeral wash habitats provide micro habitats for a variety of species and play an important role in conveying surface flows during storm events. Although this landform is relatively common in the region, much of this habitat has been lost over the last several decades due to development and agricultural practices. Temporary and permanent impacts to State and federal jurisdictional waters would be considered significant without mitigation.

Mitigation Measures

MM BR-2: Develop a Habitat Mitigation and Restoration Plan

MM BR-3: Implement a Worker Environmental Education Program

MM BR-4: Implementation of Best Management Practices

MM BR-5: Wildlife Pre-Construction Surveys and Biological Monitoring

MM BR-6: Implement Biological Construction Monitoring

MM BR-16: Develop a Habitat Mitigation and Monitoring Plan

Significance After Mitigation

As required by law the Applicant would comply with the regulations regarding conducting Project activities in waterbodies under the jurisdiction of the State and federal government. As such, the applicant would obtain required permits pursuant to Section 401 and 404 of the CWA and the State Porter-Cologne Act and CDFG Code 1602. In accordance with the CWA, there would be no net loss of wetlands from the implementation of the Project. As such, mitigation would include restoration, enhancement, and/or compensation, as appropriate. These measures would help ensure that impacts from erosion and sedimentation that could occur during road construction upslope of a jurisdictional waterway would be minimized and would also help ensure that the applicant obtain all appropriate permits. Where avoidance of impacts is not feasible, the applicant shall mitigate through the restoration, enhancement, and/or preservation of existing wetlands. Implementation of the mitigation measures listed above would reduce impacts to the wetland habitats to less-than-significant levels.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Project would interfere with established bird and bat migratory corridors.

As previously described, the Project area is home to migratory bird species and migratory bat species, which are known to occur in the area. The presence of collector and transmission lines and other battery facility structures may result in impacts to migrating bird and bat species as a result of fatal collisions with transmission lines (see Impact BR-7). Many studies have quantified bird strikes with transmission lines, but similar information for bats is very limited (Manville 2005). In California, land bird migrants concentrate along the Pacific coast, large rivers, and desert oases. Water birds concentrate along the Pacific coast and in coastal estuaries and freshwater and saline wetlands. Diurnal raptors such as hawks concentrate along the Pacific coast and coastal and interior mountain ranges. Specific impacts and mitigation associated with potential bird and bat strikes are discussed in Impacts BR-6 and BR-7.

There are no known bird or bat migratory corridors that would be directly impeded by the Project. Although wintering birds use the Project Site, large concentrations of migrants are not known to utilize any specific portion of the Project Site. Furthermore, bats are expected to avoid transmission lines because they can detect objects as small as 0.4 to 0.004 inch in size through echolocation (Vaughan and Vaughan 1986), and the size of guard lines and transmission lines is typically greater than or equal to 0.5 inch in diameter. Therefore, the impact to bird and bat migratory corridors from the Project would be less than significant.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The General Plan Open Space Conservation Policy requires detailed investigations to be conducted to determine the significance, location, extent, and condition of natural resources in the County. If any rare, sensitive, or unique plant or wildlife habitat would be impacted by a project, the County must notify the agency responsible for protecting plant and wildlife before approving that project. Consistent with this policy, appropriate studies have been prepared for the Project. These studies were referenced in preparing the analysis in this section. Likewise, the General Plan Land Use Element Policy notes that a majority of privately-owned land in the County is designated "Agriculture," which is also the predominate area where BUOWs create habitats. Consistent with this policy, pre-construction surveys for BUOW will be conducted. No impact would occur relative to the policies of the General Plan (Imperial County 2016).

f) 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?

The Project 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.

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

3.5 GEOLOGY AND SOILS

This section describes the affected environment and regulatory setting for the geologic and soil characteristics of the Project Site. This section also describes the potential geologic and soil impacts that would result from implementation of the Project and, where necessary to reduce potentially significant impacts, provides mitigation measures to reduce such impacts to less than significant levels. The environmental setting information and analysis in this section is summarized from the Preliminary Geotechnical Investigation prepared for the Project by NV5 West, Inc., October 2019. The technical report is hereby incorporated by reference and included in Appendix G of this EIR.

3.5.1 Regulatory Framework

3.5.1.1 Federal

National Earthquake Hazards Reduction Program

The National Earthquake Hazards Reduction Program (NEHRP) leads the federal government's efforts to reduce the fatalities, injuries and property losses caused by earthquakes. Congress established NEHRP in 1977, directing that four federal agencies coordinate their complementary activities to implement and maintain the program. These agencies are the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science foundation (NSF) and the United States Geological Survey (USGS). In addition to other federal agencies, program partners include state and local governments, universities, research centers, professional societies, trade associations and businesses, as well as associated councils, commissions, and consortia (FEMA 2020).

3.5.1.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to regulate development near active faults in order to mitigate the hazard of surface fault rupture. The stated intent of the Act is to "…provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults." The Alquist-Priolo Earthquake Fault Zoning Act also requires the State Geologist to compile maps delineating earthquake fault zones and to submit maps to all affected cities, counties and state agencies for review and comment (CGS 2018).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC, Chapter 7.8, Section 2690-2699.6) directs the DOC's California Geological Survey (CGS) to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards. The SHMA was passed by the legislature following the 1989 Loma Prieta earthquake. The SHMA requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires (CGS 2020).

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 2019 California Building Standards Code was published on July 1, 2019, with an effective date of January 1, 2020.

3.5.1.3 Local

County of Imperial General Plan

The County General Plan contains goals, objectives, policies, and programs created to minimize the risk associated with geology and soils and are noted below, as applicable:

Seismic and Public Safety Element

Goal 1: Include public health and safety considerations in land use planning.

> **Objective 1.1:** Ensure that data on geological hazards is incorporated into the land use review process, and future development process.
>
> **Objective 1.4:** Require, where possessing the authority, that avoidable seismic risks be avoided; and that measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service.
>
> **Objective 1.7:** Require developers to provide information related to geologic and seismic hazards when siting a proposed project.
>
> **Goal 2:** Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.
>
> **Objective 2.2**: Reduce risk and damage due to seismic hazards by appropriate regulation.
>
> **Objective 2.5:** Minimize injury, loss of life, and damage to property by implementing all state codes where applicable.
>
> **Objective 2.8:** Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures.

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 Ordinance 1516

The ordinance is established pursuant to Section 101000, et seq. of the California Health and Safety Code, the Porter-Cologne Water Quality Control Act, Water Code Section 1 3000 et seq., State Water Resources Control Board Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS), and the Colorado River Region Basin Plan. This Chapter shall apply to all territory embraced within the unincorporated limits of the County of Imperial. This ordinance implements local alternative minimum standards for new and replacement OWTS consistent with the Local Agency Management Program authorized by the Water Quality Control Policy adopted by the State Water Resources Control Board on June 19, 2012, and in compliance with the Colorado River Region Basin Plan.

3.5.2 Environmental Setting

3.5.2.1 Geology

The Project Site is located in Imperial County, in the southern portion of the Salton Trough, a structural depression within the Colorado Desert geomorphic province. This province is generally a low-lying barren desert basin (in part about 230 feet below mean sea level) dominated by the Salton Sea. The province is a depressed block between active branches of the San Andreas fault system. The fault branches are buried by recent alluvial deposits. The dominant structural features related to the San Andreas fault system consist of northwest-trending faults and fault zones. The major northwest trending fault zones include the San Jacinto Fault, Imperial Fault, the Superstition Hills Fault, the Elsinore Fault and the San Andreas Fault. The Salton Trough was inundated during the Quaternary by an ancient freshwater lake (Lake Cahuilla), resulting in a sequence of lacustrine (lake) deposits consisting of interbedded sand silt and clay. Remnants of the ancient shorelines of the extinct Lake Cahuilla remain prevalent in the Salton Trough.

Subsurface Conditions

Geologic materials encountered during the subsurface explorations of the Project Site consisted of natural deposits mapped as Quaternary-aged alluvial deposits and Cahuilla Beds (Qa-Qc) are undifferentiated The soils on the Site range from tan to brown, dry to wet, stiff to hard lean clay and silt, and medium dense to very dense silty sand and poorly graded sand with silt. Figure 3.5-1 depicts the soil types on the Project Site, and Table 3.5-1 discusses the characteristics of the soils that cover at least 10 percent of the Site.

Table 3.5-1 Project Site Soils Description

Soil Symbol	Soil Name	Description
115	Imperial-Glenbar Silty Clay Loams, Wet, 0-2% Slopes	These nearly level soils are on flood plains and lakebeds within the irrigated areas of the Imperial Valley. Elevation is 150 feet below sea level to 200 feet above. Glenbar soils are well drained. Typically, they have a pinkish gray clay loam or silty clay loam surface layer. Underlying this is stratified light brown clay loam and silty clay loam. In some areas the surface layer is highly variable and ranges from sand to silty clay loam. Imperial soils are moderately well drained. They have a pinkish gray silty clay or silty clay loam surface layer. Underlying this is pinkish gray and light brown silty clay.

Soil Symbol	Soil Name	Description
122	Meloland Very Fine Sandy Loam, Wet	This very deep, nearly level soil is on flood plains and alluvial basin floors. Elevation is 35 feet above sea level to 230 feet below. Permeability is slow, and available water capacity is high to very high. Surface runoff is slow, and the hazard of erosion is slight.
135	Rositas Fine Sand, Wet, 0-2% Slopes	This very deep, nearly level soil is on flood plains and alluvial basin floors. Elevation is 150 feet above sea level to 230 feet below. Typically, this Rositas soil is reddish yellow fine sand to a depth of 60 inches or more. Permeability is rapid, and available water capacity is low. Surface runoff is slow, and the hazard of erosion is slight.
142	Vint Loamy Very Fine Sand, Wet	This very deep, nearly level soil is on basin floors and flood plains. Elevation is 35 feet above sea level to 230 feet below. Permeability of this Vint soil is moderately rapid, and available water capacity is moderate. Surface runoff is slow, and the hazard of erosion is slight.
144	Vint And Indio Very Fine Sandy Loams, Wet	This undifferentiated unit consists of deep, nearly level soils on the bed of old Lake Cahuilla. Elevation is 35 feet above sea level to 230 feet below. This Vint soil has moderately rapid permeability to a depth of 40 inches, and slow permeability below this depth. Available water capacity is moderate. Surface runoff is slow, and the hazard of erosion is slight. The hazard of soil blowing is moderate.

Source: USDA 1981, Appendix C.1

Faults

The Project Site does not lie within an identified earthquake fault zone[1]. In addition, there are no known major or active faults mapped on the Project Site. Evidence for active faulting on the Site was not observed during the subsurface investigation. There are four traces of surface rupture along major active earthquake fault zones located within approximately five miles of the Site: Route 247 Fault Sone, Yuha Fault, North Centinela Fault, and Yuha Well Fault.

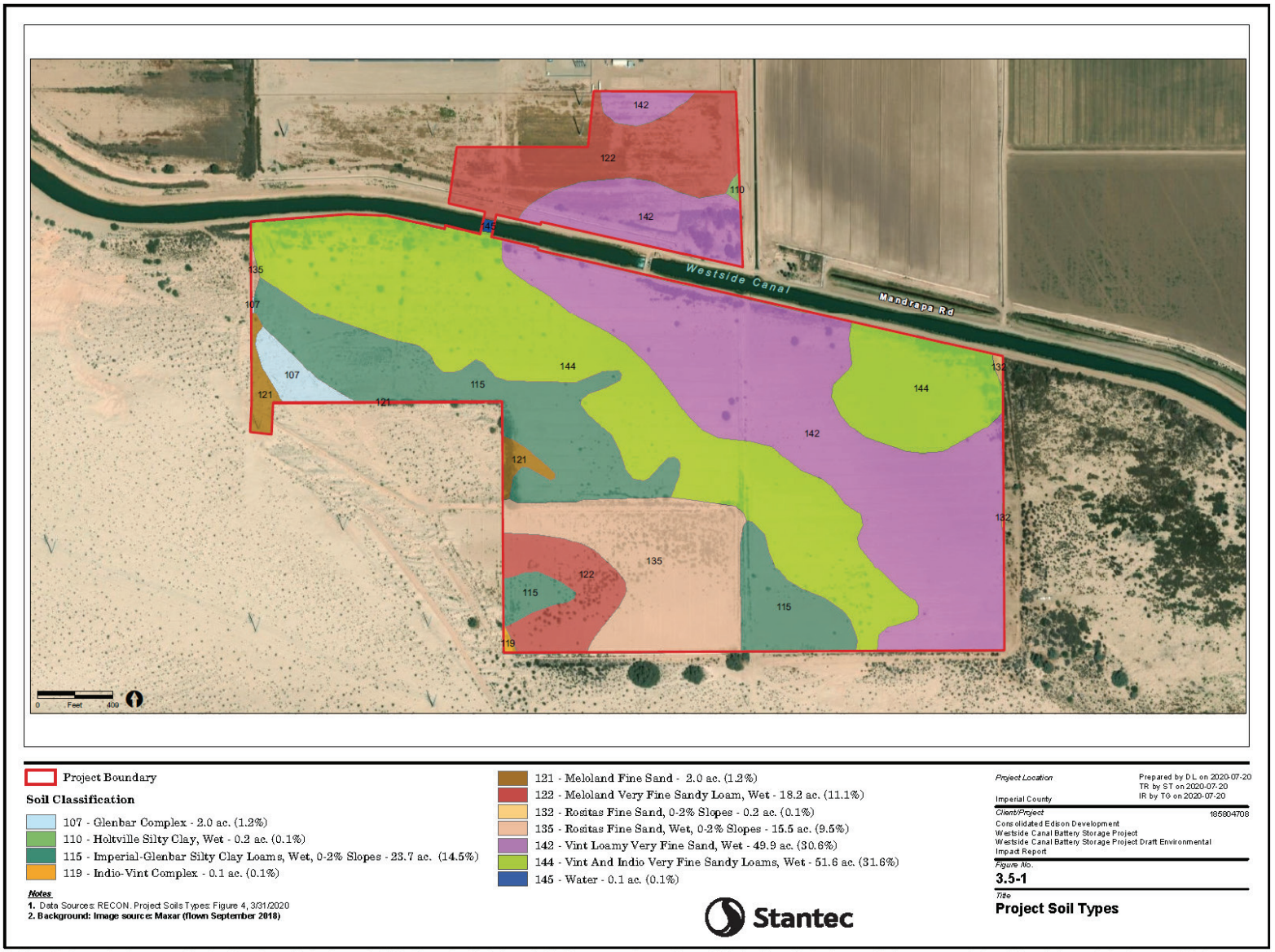
Landslides/Slope Instability

Landslides are the descent of rock or debris caused by natural factors, such as the pull of gravity, fractured or weak bedrock, heavy rainfall, erosion, and earthquakes. There are no high or steep natural slopes on or in close proximity to the Project Site.

Lateral Spreading

Seismically induced lateral spreading involves primarily lateral movement of earth materials due to ground shaking in conjunction with liquefaction. Lateral spreading can manifest as near-vertical cracks with predominantly horizontal movement of the soil mass involved towards an adjacent open slope face. Lateral spreading occurs when there is widespread liquefaction and a gentle slope, or a free face toward which lateral spreading may occur, such as a water body. The Project Site is adjacent to the Westside Main Canal.

[1] Review of the Earthquake Zones of Required Investigation, Mount Signal Quadrangle, CGS, Official Map, September 12, 2012.



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 3.5-1 Project Soil Types

Groundwater

Groundwater was encountered at a depth of approximately 9 and 19 feet below ground level (bgs) and are expected to vary seasonally. Factors such as a substantial increase in surface water infiltration from landscape irrigation, agricultural activity, storage facility leaks or unusually heavy precipitation can impact groundwater levels.

Subsidence

The Imperial Valley is a region generally known for historic ground subsidence. The subsidence has been attributed to regional geologic processes and to fluid withdrawal associated with geothermal production. Most of the subsidence is tectonic in nature and the broad Salton Trough basin has been subsiding for at least the past 35 million years. Historic soil subsidence due to groundwater withdrawal associated with geothermal production has also been documented. The subsidence occurs when groundwater (near the surface or in a deep aquifer) is lowered past its historical level. This occurrence results in an increase of effective stress within a soil layer which typically translates into additional soil consolidation. Due to the depth of the reservoir, subsidence is not localized.

Expansive Soils

The Project Site is underlain predominantly by poorly to moderately consolidated alluvial materials consisting of sandy silt to clay, silty sand and poorly graded sand with silts. Three tested samples of the near-surface silt and clay soils indicate medium to high expansion potential.

Paleontological Resources

Paleontological resources (fossils) are the remains of prehistoric plant and animal life. Fossil remains, such as bones teeth, shell, and wood, are found in geologic deposits (rock formations) within which they were originally buried. Many paleontological fossil sites are recorded in the County and have been discovered during construction activities. One area in which paleontological resources appear to be concentrated in this region is the shoreline of ancient Lake Cahuilla, which would have encompassed the present-day Salton Sea. As previously mentioned above, the Project Site is generally underlain by Quaternary Lake Deposits. 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 paleontological sensitivity of these formations within the Project Site is considered to be high.

3.5.3 Environmental Impacts

3.5.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA Guidelines. The Project would result in a significant impact to geology and soils if it would:

a) Result in substantial soil erosion or the loss of topsoil?

b) Be located on strata 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?

c) 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?

d) 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?

e) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

3.5.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (Appendix A), since they were determined to result in less than significant or no impact, as briefly described in Chapter 7:

- Would the project directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:

  i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo 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

  ii. Strong seismic ground shaking

  iii. Seismic-related ground failure, including liquefaction

  iv. Landslides

3.5.3.3 Methodology

Potential significant impacts associated with the Project were identified from the Preliminary Geotechnical Investigation prepared by NV5 West, Inc. (Appendix G). The report presented findings, conclusions, and recommendations concerning development of the Project Site that were based on an engineering analysis of the geotechnical properties of the subsurface conditions (described above). The discussion below identifies potential Project impacts and the measures that would be required to mitigate impacts that were determined to be potentially significant.

3.5.3.4 Project Impacts and Mitigation Measures

a) Would the Project result in substantial soil erosion or the loss of topsoil?

Construction

Soil erosion could result during construction of the Project in association with grading and earthmoving activities. The Project Site soils have a slight potential for erosion and would be located on a relatively flat topography and would not involve grading steep slopes; however, earthmoving and construction activities would loosen soil and could contribute to soil loss and erosion by wind and stormwater runoff. In compliance with federal Clean Water Act and regulations of the SWRCB, the Project would require implementation of a construction Stormwater Pollution Prevention Plan (SWPPP), including site-specific BMPs for erosion and sediment control as noted in mitigation measure HYD-1. The SWPPP would require BMPs be adopted for the specific conditions at the Project Site and would minimize any risk for substantial erosion during construction. Therefore, with implementation of MM HYD-1, impacts from construction-related erosion would be reduced to a less than significant level.

Operations

Operational activities on the Site would involve the routine maintenance, mowing vegetation, and cleaning. These activities would not be considered erosive activities, or result in the loss of topsoil. Furthermore, according to the Natural Resources Conservation Service (NRCS), the soils on the Project Site have a low to moderate erosion potential. As a result, potential impacts associated with erosion occurring during Project operation would be less than significant.

Decommissioning

Activities associated with the decommissioning of the Project would be similar to those occurring during Project construction. Decommissioning activities would include the removal of above-ground structures, excavation and removal of all below-ground cabling, removal of access roads, and removal of concrete pads and foundations. Project decommissioning would be required to comply with MM HYD-1 that requires preparation of a SWPPP and BMPs to control erosion from disturbed areas to reduce runoff from the Project Site. As such, erosion and sedimentation impacts associated during decommissioning of the Project would be less than significant with mitigation.

Mitigation Measures

Implement MM HYD-1, see Section 3.8 Hydrology and Water Quality for details.

Level of Significance After Mitigation

Implementation of Mitigation Measure HYD-1 would reduce potential impacts on topsoil to less-than-significant levels.

b) Would the Project be located on strata 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?

Construction

The Project would require earthwork, including both rough and final grading and trenching in order to prepare the Site for construction of roadways and parking, stormwater retention basins, buildings and substations, ground-mounted solar, and utilities and other required facilities.

Based on the Preliminary Geotechnical Investigation, the Project Site is not within a zone of earthquake-induced landslide potential, as shown by the State of California Seismic Hazard Zones Map, nor is it located on a slope. Therefore, potential for landslide due to unstable soil conditions is less than significant.

The potential for lateral spreading in the area adjacent to the Westside Main Canal free face was analyzed for the Site. The results indicated low potential for lateral spreading due to the absence of widespread liquefaction and the relatively shallow depth of the Westside Main Canal as compared to the depth of liquefiable soil layers. Therefore, impacts from lateral spreading would be less than significant.

The potential for subsidence occurs when groundwater (near the surface or in a deep aquifer) is lowered past its historical level. This occurrence results in an increase of effective stress within a soil layer which typically translates into additional soil consolidation. Considering the distance to the geothermal production areas from the Project Site, and that ground subsidence in the Imperial Valley is occurring on a regional (i.e., not local) level, ground subsidence at the Site is not expected to create significant differential

settlement conditions. Therefore, potential for damaging localized differential settlement from fluid withdrawal subsidence is considered low.

The subsurface exploration program encountered poorly to moderately consolidated alluvial silt, clay and silty sand, along with a relatively shallow ground water table. A liquefaction analysis performed using the liquefaction triggering analysis procedure indicated that minor liquefaction effects (related to saturated soils) are expected at the site due to presence of few isolated saturated medium dense sand layers present between depths of 15 and 50 feet below ground surface (bgs). However, the analysis further indicated that the Site is not susceptible to collapse due to liquefaction (related to non-saturated soils).

The analysis contained in the Preliminary Geotechnical Investigation did not identify collapse as an issue of concern.

Therefore, geologic and seismic hazards identified from construction activities are less than significant related to an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, and no mitigation measures are required.

Operation

The analysis noted above for construction-related impacts associated with geologic and seismic hazards concerning on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse determined impacts would be less than significant, and no mitigation measures are required. There are no factors associated with Project operation that would change this conclusion, as the geological impacts of Project operation and construction would be similar. Therefore, operational impacts would be less than significant, and no mitigation measures are required.

Decommissioning

Activities associated with the decommissioning of the Project would be similar to Project construction and would, therefore, result in a less than significant impact related to an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, and no mitigation measures are required.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.

c) 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?

Construction

The analysis contained in the Preliminary Geotechnical Investigation indicates the Project Site is underlain predominantly by poorly to moderately consolidated alluvial materials consisting of sandy silt to clay, silty sand and poorly graded sand with silts. Three tested samples of the near-surface silt and clay soils indicate medium to high expansion potential with an Expansion Index (EI) of 54 to 106. These materials are generally considered unsuitable for use as backfill for structure foundations, retaining walls or pipe bedding.

Moreover, since site grading will redistribute on-site soils, potential expansive soil properties should be verified at the completion of rough grading.

The near-surface soils in the upper three to five feet were found to be generally desiccated and considered moderately compressible. The near-surface soils have an expansion potential that ranges from medium to high. These soils are considered unsuitable for re-use as compacted fill and backfill. To provide a uniform support for the new structures and surface improvements, the analysis recommended that these materials be over-excavated and replaced with properly compacted, non-expansive granular fill. Suitable fill would be used during construction activities and impacts would be less than significant, and no mitigation measures are required.

Operation

The analysis noted above for construction-related impacts associated with expansive soils related to the creation of substantial direct or indirect risks to life or property is also applicable to operational impacts. The proposed buildings and infrastructure would comply with standard engineering practices, including the most recent CBC standards, as well as the geotechnical engineering recommendations in the design and construction of the Project. Adherence to those provisions and standards would reduce potential impacts related to creating substantial risks to life or property due to the presence of expansive soils, including those identified in Table 18-1-B of the Uniform Building Code (1994). Therefore, potential impacts would be less than significant, and no mitigation measures are required.

Decommissioning

Activities associated with the decommissioning of the Project would include removal of all Site improvements that are no longer in use and cannot be repurposed. All infrastructure improvements included as part of the Project that can continue to be used or repurposed (e.g., Westside Main Canal bridge, access roads, O&M building, and buildings housing battery energy storage systems) would remain onsite after decommissioning of the Project, based on County approval. These activities would not result in changes to the Site that would create substantial direct or indirect risks to life or property conditions. Therefore, impacts would be less than significant, and no mitigation is required.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant.

d) 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?

Construction

During construction, portable toilet systems would be installed to provide construction workers with sanitary services. These portable toilets would be cleaned regularly as stipulated in the contract with the service chosen. Impacts would be less than significant.

Operation

The Project includes the construction of a septic leach field system to provide sanitary sewer services during operation. The Project would be required to submit a Service Request Application for a special On-site Wastewater Treatment System (OWTS) permit through the County Public Health Department. The septic system design would adhere to the California Plumbing Code and County OWTS Ordinance 1516. The OWTS would be reviewed by the County Public Health Department (PHD) and comply with all applicable permit conditions. Pending design and installation approval by the PHD, once operational, the septic leach field system would not be expected to result in additional issues related to septic or alternative wastewater disposal systems, since it would be designed in accordance with required engineering and PHD requirements. Therefore, impacts would be less than significant, and no mitigation measures are required.

Decommissioning

At the end of the 40-year Project CUP lifespan, decommissioning activities would be undertaken and would apply to those portions of the Project that involve operational components including, but not limited to, the electrical switching station, substation, battery modules, inverters, transformers, and PV modules. All operational components would be disassembled and removed from the Project Site. O&M Building and battery storage enclosures, access roads, and the clear span bridge would remain on the Site and may be repurposed. If the proposed septic leach field is determined to be abandoned, it would be done in accordance with the County Ordinance 1516. Any future reuse of the septic leach field may be subject to additional permitting requirements that would be determined during the subsequent regulatory review for a future use. The impacts from decommissioning would therefore be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.

e) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Construction

There are no known unique geological features contained on-site. The geologic materials encountered during the subsurface explorations consisted of natural deposits mapped as Quaternary-aged alluvial deposits and Cahuilla Beds (Qa-Qc, undifferentiated) on published geologic maps. Deposits of Holocene age (such as Qa-Qc) contain the unfossilized remains of modern species and are generally considered too young to preserve fossil remains. As such, because surficial deposits of Holocene age sediments are too young to contain in-situ fossils, they are considered to have low potential for producing significant paleontological resources. However, if these sediments are underlain by Pleistocene alluvium, the potential for encountering fossils is increased.

The Project would require earthwork, including both rough and final grading and trenching. As part of these activities, the existing Site surface would need to be modified and would require earthwork activities. It is anticipated that the proposed excavation depths would not be deep enough to encounter Pleistocene alluvium, thereby reducing the potential for encountering on-site fossils. Nevertheless, the potential to encounter paleontological resources remains. As such, the Project could directly or indirectly destroy a

unique paleontological resource; however, Project construction would not be expected to affect a unique geological feature, since none are known to occur. With implementation of Mitigation Measure GEO-1, which provides measures to be taken in the case of inadvertent discovery of a paleontological resource, potential construction-related impacts to undiscovered paleontological resources would be less than significant.

Operation

Once constructed, there would be no operational impacts related to unique paleontological resources or unique geologic features, since all potential impacts would be associated with ground-disturbing activities during Project construction. No mitigation measures are required.

Decommissioning

Decommissioning activities would occur in the areas already disturbed and excavated during Project construction. Therefore, no new paleontological resources are anticipated to be found. Impacts would be less than significant, and no mitigation measures are required.

Mitigation Measure

MM GEO-1: Inadvertent Discovery

In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the Project Site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may exist within the Site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program..

Significance After Mitigation

Implementation of Mitigation Measure GEO-1 would reduce potential impacts on geological features to less-than-significant levels.

3.6 GREENHOUSE GASES

This section describes the impacts on GHG emissions that would result from implementation of the Project. Included is a review of existing conditions, a summary of applicable policies and regulations related to GHG emissions, and analysis of environmental impacts of the proposed Project. Where applicable, Mitigation Measures are included for significant impacts. The information provided in this section is based on the information provided in the Air Quality Analysis, prepared by RECON Environmental, Inc. (March 2021), and the Greenhouse Gas Analysis prepared by RECON Environmental, Inc. (March 2021), included as Appendix D and Appendix G, respectively.

3.6.1 Regulatory Framework

3.6.1.1 Federal

The federal government is taking steps to address the challenge of climate change. The EPA collects various types of GHG emissions data. This data helps policy makers, businesses, and the EPA track GHG emissions trends and identify opportunities for reducing emissions and increasing efficiency. The EPA has been collecting a national inventory of GHG emissions since 1990 and in 2009 established mandatory reporting of GHG emissions from large GHG emissions sources. The EPA is also achieving GHG reductions through partnerships and initiatives; evaluating policy options, costs, and benefits; advancing the science; partnering internationally and with states, localities, and tribes; and helping communities adapt.

Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the United States (U.S.). While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 mpg by 2020. In May 2009, plans were announced to further increase CAFE standards to require light-duty vehicles to meet an average fuel economy of 35.5 miles per gallon (mpg) by 2016. In August 2012, fuel economy standards were further increased to 54.5 mpg for cars and light-duty trucks by Model Year 2025; this will nearly double the fuel efficiency of those vehicles compared to new vehicles currently on our roads. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

Energy Star

Energy Star is a joint program of the EPA and the U.S. Department of Energy, which promotes energy efficient products and practices. Numerous companies from industrial, commercial, utility, state and local organizations have partnered with the EPA to develop solutions that deliver energy efficiency resulting in improved air quality and protecting the climate (Energy Star 2020). With implementation of Energy Star solutions since 1992, residences and businesses have been able to save approximately four trillion kW-hours and an estimated 3.5 billion MT of GHG reductions (Energy Star 2020).

Stationary Sources

The 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 EPA's authority to regulate GHG emissions under the CAA. Furthermore, under the authority of the CAA,

the EPA is beginning to regulate GHG emissions starting with large stationary sources. In 2010, the EPA set GHG thresholds to define when permits under the New Source Review PSD standard and Title V Operating Permit programs are required for new and existing industrial facilities. In 2012, EPA proposed a carbon pollution standard for new power plants.

State

California has been innovative and proactive in addressing GHG emissions through passage of legislation including Senate and Assembly bills and executive orders, some of which are listed below.

Executive Order S-3-05

In 2005, the governor issued EO S-3-05, establishing statewide GHG emissions reduction targets. The goal of this EO is to reduce California's GHG emissions to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The EO further directed the secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to 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.

Assembly Bill 32- California Global Warming Solutions Act

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that CARB create a scoping plan and implement rules to achieve "real, quantifiable, cost- effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 as stated in the Health and Safety Code Section 38551(b)). The law requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. The Scoping Plan was prepared and approved on December 11, 2008 and was later updated in May 2014. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals (to the level of 427 $MMTCO_2e$) defined in the original Scoping Plan. It also evaluates how to align the State's long-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use. In 2005, Governor Schwarzenegger issued EO S-3-05, establishing statewide GHG emissions reduction.

Under the BAU scenario established in 2008, statewide emissions were increasing at a rate of approximately one percent per year, as noted below. It was estimated that the 2020 estimated BAU of 596 $MMTCO_2e$ would have required a 28 percent reduction to reach the 1990 level of 427 $MMTCO_2e$.

In July 2017, Governor Brown signed AB 617 which would reduce air pollution and associated health impacts in highly impacted communities. AB 617 provides a community-focused action framework to improve air quality and reduce exposure to criteria air pollutants and TACs in the communities most impacted by air pollution. Currently, 13 communities have been selected to participate. AB 617 includes a variety of strategies to address air quality issues in impacted communities, including community-level monitoring, uniform emission reporting across the State, stronger regulation of pollution sources, and incentives for both mobile and stationary sources. The programs and incentives of AB 617 would also result also result in reductions of GHG emission.

Senate Bill 32

Chapter 249 of SB 32 codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030. SB 32 provides another intermediate target between the 2020 and 2050 targets set in EO S-3-05.

Senate Bill 97

Chapter 185 of SB 97 requires the Governor's OPR to develop recommended amendments to the CEQA Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Executive Order S-01-07

This order, signed by Governor Schwarzenegger, sets forth the 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.

Senate Bill 375

SB 375, Chapter 728 requires CARB to set regional emissions reduction targets for passenger vehicles. The MPO for each region must then develop a SCS that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

Executive Order B-30-15

On April 20, 2015, Governor Brown signed EO B-30-15 to establish a GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed its legislated target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, summarized above). California's new 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 U.S. to limit global warming below 2°C, the warming threshold at which there will likely be major climate disruptions such as severe droughts and rising of sea levels. The targets stated in EO B-30-15 have not been adopted by the state legislature.

Climate Change Scoping Plan

In December 2008, the CARB approved the AB 32 Scoping Plan outlining the state's strategy to achieve the 2020 GHG emissions limit. The Scoping Plan estimates a reduction of 174 $MMTCO_2e$ (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors, and proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan must be updated every five years to evaluate the implementation of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. The First Update to the Climate Change Scoping Plan was approved by the CARB on May 22, 2014. In 2016, the Legislature passed SB 32, which codified a 2030 GHG emissions reduction target of 40 percent

below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan.

On December 14, 2017, the CARB approved the Second Update to the Climate Change Scoping Plan, the 2017 Climate Change Scoping Plan (2017 Scoping Plan). In the 2017 Scoping Plan, CARB estimated the projected statewide 2030 emissions for the Reference Scenario (under BAU conditions [i.e., emissions that would occur without any plans, policies, or regulations to reduce GHG emissions]) to be 389 $MMTCO_2e$ (CARB 2017). Health and Safety Code 25.5 set the emissions target of 260 $MMTCO_2e$. Based on this, the Reference Scenario is expected to exceed the 2030 target by 129 $MMTCO_2e$ (CARB 2017).

California Code of Regulations, Title 24 – California Building Code

CCR, Title 24 - CBC, consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility, and so on. Of particular relevance to GHG reductions are the CBC's energy efficiency and green building standards as outlined below.

Title 24, Part 6 – Energy Efficiency Standards

The CCR, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The California Energy Code is updated periodically to incorporate and consider new energy-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The current version of the California Energy Code, known as 2016 Title 24, or the 2016 Energy Code, became effective January 1, 2017. The 2016 Energy Code provides mandatory energy efficiency measures as well as voluntary tiers for increased energy efficiency. The CEC, in conjunction with the CPUC, has adopted a goal that all new residential and commercial construction achieve zero net energy by 2020 and 2030, respectively. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards. New construction and major renovations must demonstrate their compliance with the current 2016 Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC approved energy performance software that shows iterative increases in energy efficiency given the selection of various heating, ventilation, and air conditioning; sealing; glazing; insulation; and other components related to the building envelope.

Title 24, Part 11 – California Green Building Standards

Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2016 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in Model Water Efficient Landscape Ordinance emergency standards

- Twenty percent mandatory reduction in indoor water use relative to specified baseline levels
- Sixty-five percent construction/demolition waste diverted from landfills
- Infrastructure requirements for electric vehicle charging stations
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards

Similar to the reporting procedure for demonstrating 2016 Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

Renewable Energy Portfolio

The Renewable Portfolio Standard (RPS) promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with the initial requirement that 20 percent of electricity retail sales must be served by renewable resources by 2017 (referred to as the "initial RPS"). The goals have been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020.

The program was accelerated in 2015 with SB 350 (de León 2015) 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. In 2018, SB 100 (de León 2018) was signed into law, which again increases the RPS to 60 percent by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

In April 2011, Governor Brown signed SB 2 (1X) codifying California's 33 percent RPS goal; Section 399.19 requires the CPUC, in consultation with the CEC, to report to the Legislature on the progress and status of RPS procurement and other benchmarks. The purpose of the RPS upon full implementation was to provide 33 percent of the state's electricity needs through renewable energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

The program was further accelerated in 2015 with SB 350 (de León 2015) 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. Most recently, on September 10, 2018, Governor Brown signed the SB 100 which aims at eliminating fossil fuel from electricity generation in California. The Bill sets a target of 100 percent carbon-free electricity by 2045.

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. In 2008, as part of the Scoping Plan original estimates, CARB estimated that full achievement of the RPS would decrease statewide GHG emissions by 21.3 $MMTCO_2e$. In 2010, CARB revised this number upwards to 24.0 $MMTCO_2e$.

Cap-and-Trade Program

The California Cap-and-Trade Program began in January 2013 and is authorized to continue until the end of 2030. The program is a market-based regulation that is designed to reduce GHG emissions associated with major sources by setting a firm cap on overall GHG emissions from covered entities and gradually reducing that cap over time. The program defines major sources as facilities that generate more than 25,000 $MTCO_2e$ per year, which includes many electricity generators, refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants. Each entity covered by the program is allocated specific GHG emission allowances and is able to buy or sell additional offset credits to other major sources-covered entities. Thus, the program employs market mechanisms to cost-effectively reduce overall GHG emissions. Throughout the program's duration, CARB continues to adjust the overall GHG emissions cap to achieve emission levels consistent with 2020 statewide GHG emission reduction targets established by AB 32 and the 2030 statewide GHG emission reduction targets established by SB 32.

3.6.1.2 Local

The County General Plan Renewable Energy and Transmission Element was adopted in October 2015. As stated in the element, the benefits of renewable energy development include reduction in potential GHG by displacing fossil-fuel-generated electricity with renewable energy, which does not add to the greenhouse effect; contribution towards meeting the state's RPS mandate; and minimization of impacts to local communities, agriculture, and sensitive resources (Imperial County 2015b).

The General Plan Conservation and Open Space Element policies related to the Project are identified below. Table 3.6-1 summarizes the Project's consistency with the applicable General Plan air quality policies. While this EIR analyzes the Project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.6-1 Imperial County General Plan Consistency Analysis

General Plan Policies	Consistent with General Plan?	Analysis
Conservation and Open Space Element		
Protection of Air Quality		
Objective 7.1: Ensure that all project and facilities comply with current Federal, State, and local requirements for attainment of air quality objectives.	Yes	The Project would support the State's goal to increase use of renewable energy. The Project would assist the State's goal of utilizing 100 percent renewable energy by 2045 which would result in a net decrease in use of fossil fuel and Greenhouse Gas (GHG) emissions. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.
Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all federal, state, and local agencies in the effort to attain air quality objectives.	Yes	The Project will comply with Imperial County Air Pollution Control District (ICAPACD) Regulation VIII, Fugitive Dust Rules. A construction analysis and fugitive dust control measures are provided in Appendix D

General Plan Policies	Consistent with General Plan?	Analysis
Objective 7.3: Work cooperatively with the EPA and CARB in evaluating air quality monitoring in Imperial County.	Yes	The Project will comply with all Environmental Protection Agency, California Air Resources Board, and ICAPACD air quality monitoring and reporting requirements.
Objective 7.4: Enforce and monitor environmental mitigation measures relating to air quality.	Yes	The Project would reduce emissions by providing solar photovoltaics (PV) on the Project Site to the extent feasible.
Objective 7.5: Coordinate efforts with Imperial County Transportation Commission (ICTC) and other appropriate agencies to reduce fugitive dust from unpaved streets.	Yes	The Project will comply with ICAPACD Regulation VIII, Fugitive Dust Rules. A construction analysis and fugitive dust control measures are provided in Appendix D.
Objective 7.6: Explore and assess strategies to reduce greenhouse gas emissions in the County	Yes	It is estimated that a range of 17,000 to 34,000 Megawatt hours would be produced annually by on-site solar PV at full build-out. On-site solar PV would offset 7,276 to 14,552 metric tons of carbon dioxide equivalent per year of the Project's GHG emissions. For informational purposes, the energy offset associated with on-site solar PV was calculated and is summarized in Table 3.6-3.

3.6.2 Environmental Setting

3.6.2.1 GHG Setting

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHGs, particularly those generated from the production and use of fossil fuels. While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy.

GHGs refer to atmospheric gases that absorb solar radiation and subsequently emit radiation in the thermal infrared region of the energy spectrum, trapping heat in the Earth's atmosphere. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), tetrafluoromethane, hexafluoroethane, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane). A growing body of research attributes long-term changes in temperature, precipitation, and other elements of Earth's climate to large increases in GHG emissions since the mid-nineteenth century, particularly from human activity related to fossil fuel combustion. Anthropogenic GHG emissions of particular interest include CO_2, CH_4, N_2O, and fluorinated gases. These gases are described in further detail below.

GHGs differ in how much heat each can trap in the atmosphere (global warming potential [GWP]). The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is expressed relative to CO_2 over a specified time period. For example, the 2007 International Panel on Climate Change Fourth Assessment Report calculates the GWP of CH_4 as 25 and the GWP of N_2O as 298,

over a 100-year time horizon (IPCC 2007). Generally, estimates of all GHGs are summed to obtain total emissions for a project or given time period, usually expressed in $MTCO_2e$ or $MMTCO_2e$.

In the U.S, the main source of GHG emissions is electrical generation followed by transportation (USEPA 2016). In California however, transportation sources are the largest contributors of GHG emissions (CARB 2019). Emissions associated with electricity generation are the second largest contributor and are dominated by CO_2 emissions from fossil fuel combustion.

Carbon Dioxide

CO_2 is a colorless, odorless gas consisting of molecules made up of two oxygen atoms and one carbon atom. CO_2 is produced when an organic carbon compound (such as wood) or fossilized organic matter, (such as coal, oil, or natural gas) is burned in the presence of oxygen. CO_2 is removed from the atmosphere by CO_2 "sinks", such as seawater, ocean-dwelling plankton, forests, and grasslands. Under certain circumstances, however, these sinks can also be a source of CO_2. Whereas the biosphere and ocean achieve a natural balance of CO_2 production and absorption, humankind has altered the natural carbon cycle since the industrial revolution. Beginning in the mid-1700s, the burning of coal, oil, natural gas, and wood has increased globally. Prior to the industrial revolution, concentrations of CO_2 were stable between 275 and 285 ppm. The National Oceanic and Atmospheric Administration (NOAA's) Earth System Research Laboratory indicates that global concentrations of CO_2 were 405.1 ppm in March 2016, an increase that matched the record jump observed in 2015 (NOAA 2017). The 6-year, 6-ppm surge in CO_2 between 2015 and 2017 is unprecedented in the observatory's 59-year record. It was a record fifth consecutive year that CO_2 rose by 2 ppm or greater. These concentrations of CO_2 far exceed the natural range over the last 650,000 years (180 to 300 ppm) as determined from ice cores (IPCC 2007).

Methane

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

Nitrous Oxide

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

Chlorofluorocarbons

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. In the 1970s, scientists discovered that CFCs destroy stratospheric ozone, leading to thinning of the Earth's protective ozone layer. Since then,

there has been an ongoing global effort to halt their production, which has been extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

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

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays are able to destroy the compounds only in the upper atmosphere. Consequently, PFCs have very long lifetimes – between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride

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

3.6.3 Environmental Impacts

3.6.3.1 Thresholds of Significance

The Impact analysis provided below is based on Appendix G of the CEQA guidelines. The Project would result in a significant impact to GHG emissions if it would result in any of the following:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

As stated in the CEQA Guidelines, these questions are “intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance” (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form). The CEQA Guidelines encourage lead agencies to adopt regionally specific thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence. No GHG emission significance threshold has been adopted by the ICAPCD for land development projects. Thus, in the absence of a threshold of significance for GHG emissions that has been adopted in a public process following environmental review, this analysis considers guidance promulgated by other agencies. The County is a member of SCAG, which is composed of several different counties including Imperial, Los Angeles, Orange, Riverside, San Bernardino, and

Ventura counties. Air districts responsible for managing air quality of within SCAG's boundaries include the Antelope Valley Air Quality Management District (Antelope Valley AQMD), the Mojave Desert Air Pollution Control District, the SCAQMD, and the Ventura County Air Pollution Control District.

Due to the climate and land use patterns, the Antelope Valley AQMD and Mojave Desert APCD are air districts that are most similar to the Imperial County APCD's jurisdiction. The Antelope Valley AQMD is within the northern part of Los Angeles County, and the Mojave Desert APCD contains San Bernardino County's high desert region and Riverside County's Palo Verde Valley region. These jurisdictions are in inland desert regions with rural land use patterns; with a substantial number large-scale agricultural, warehousing/distribution, industrial, and military operations. Additionally, both of these agencies have adopted GHG thresholds for use in CEQA analysis. As outlined in the Antelope Valley AQMD's 2016 *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines and Mojave Desert APCD's 2016 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines,* the two air districts both recommend use of a GHG emissions significance threshold of 100,000 short tons of CO_2E per year (90,718 MT CO_2E). Projects with emissions that exceed this threshold are required to incorporate mitigation sufficient to reduce emissions to less than this significance threshold or must incorporate all feasible mitigation. In the absence of adopted GHG significance thresholds, the threshold of 90,718 MT CO_2E is an appropriate CEQA significance threshold for the assessment of GHG emissions for the purposes of this Project.

3.6.3.2 Issues Scoped Out as Part of the Initial Study

None of the thresholds of significance, as listed above, were eliminated for further analysis in the Initial Study (Appendix A).

3.6.3.3 Methodology

Construction and operation of the Project would result in GHG emissions. Emissions were calculated using the CalEEMod (Version 2016.3.2). The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts including the SCAQMD.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use using data collected from surveys performed in SCAQMD. Where available, parameters were modified to reflect Project-specific data.

3.6.3.4 Project Impacts and Mitigation Measures

a) 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 generate GHG emissions from a variety of sources. Construction GHG emissions were amortized over the lifetime of the Project (30-years) and were added to annual operational GHG emissions (Appendix G). Annual GHG emissions for the Project are shown in Table 3.6-2.

Table 3.6-2 Project Annual Greenhouse Gas Emissions

Emission Source	Annual Greenhouse Gas Emissions (metric tons of carbon dioxide equivalents per year)
Construction	
Total Construction	5,687
Amortized Construction	190
Operation	
Maximum Battery Energy Losses and Auxiliary Load	82,344
Emergency Generators (Testing)	62
Mobile	741
Area Sources	<1
Water Use	30
Solid Waste Disposal	3
Total Operation	**83,181**
Project Total	**83,370**
Significance Threshold	*90,718*

Notes:
Totals may not add up exactly due to rounding.
Source: RECON 2021b

As shown in Table 3.6-2, construction and operation of the Project would generate a maximum of 83,370 MTCO annually. Therefore, Project GHG emissions would be less than the applicable screening threshold, and impacts would be less than significant. In order to further reduce Project-related GHG-emissions, the Project would provide solar PV on the Project Site to the extent feasible. It is estimated that a range of 17,000 to 34,000 MWh would be produced annually by on-site solar PV at full build-out. On-site solar PV would offset 2,761 to 5,522MT CO2E per year of the Project's GHG emissions. For informational purposes, the energy offset associated with on-site solar PV was calculated and is summarized in Table 3.6-3. As with energy-related emissions, the GHG off-set emissions associated with on-site solar depends on the state's progress towards RPS goals. GHG off-set emissions were calculated assuming an RPS target of 60 percent by year 2030.

Table 3.6-3 Solar Photovoltaics/Greenhouse Gas Emissions Offset

Solar Photovoltaic Electricity Generation (megawatt hours/year)	Off-Set Greenhouse Gas Emissions (metric tons of carbon dioxide equivalents per year)
17,000	2,761
34,000	5,522

Note: The installation of more solar PV would not be feasible due to space restrictions.

Construction

The Project would be constructed in three to five phases over a 10-year period. Construction activities is anticipated to take approximately 32 months to complete the full Project build-out. Phase 1 of the Project

would include construction of the common components such as roads, permanent clear-span bridge, O&M facilities, water connections and water mains, stormwater retention, switching station and Project substation, legal permanent vehicle access, as well as the first energy storage facility. The additional phases after Phase 1 would only construct energy storage facilities, and construction activities would be less intensive overall compared to Phase 1, in addition to requiring less construction equipment.

Construction GHG emissions would be generated from the operation of off-road equipment, emergency generators, and worker and haul truck trips. The Project would implement the standard measures for fugitive PM_{10} control as described in the ICAPCD handbook. Details of the construction analysis and fugitive dust control measures are provided in Appendix D.

Off-road Equipment

CalEEMod calculates GHG emissions from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database, OFFROAD 2011. All equipment was assumed to meet CARB Tier 3 In-Use Off-Road Diesel Engine Standards.

Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from CARB's EMFAC2014. Construction mobile emissions would be based on construction worker trips, vendor trips, and hauling trips. During peak construction activities, approximately 200 workers and 30 daily deliveries would be required. An average trip length was used to calculate total mobile emissions.

Water Consumption

Water would be used for fugitive dust control during construction activities. Typically, water use for fugitive dust control during construction activities would have indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, treat, and distribute water. However, during all construction activities, the water truck would access water directly from the Westside Main Canal immediately adjacent to the Project Site; and therefore, there would not be any emissions associated with transporting water to the Project Site.

Operation

Operation of the Project would generate GHG emissions from mobile sources, electricity and water consumption, waste generation, and area sources such as landscaping equipment. The Project would also include emergency generators to supply auxiliary power to the facility during power outages. Generators would be periodically tested each year to maintain backup capabilities in the event of a grid emergency. All generators would be subject to ICAPCD review and permitting requirements.

Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from EMFAC2014. Operation of the Project at full build-out would require up to approximately 20 full-time employees depending upon the number of phases and type of energy storage facility constructed. The Project may require fewer full-time equivalent employees, but 20 employees were assumed to provide a conservative estimate. Assuming two one-way trips per employee, the Project would be anticipated to generate up to 40 trips per day from all maintenance and security personnel. A 20-mile trip length was modeled.

Area Sources

An area source is any non-permitted stationary source of emission. Common area sources include fireplaces, natural gas used in space and water heating, consumer products, architectural coatings, dust from farming operations, landscaping equipment, and small combustion equipment such as boilers or backup generators. The Project does not include measurable amounts of fireplace use, natural gas use, consumer products, architectural coatings, or other area sources. Landscaping equipment would be used during routine weed abatement and landscaping activities and would occur on an as needed basis. The Project Site is bounded by roads, agricultural uses, and solar generation facilities. As the Project is not adjacent to natural lands, landscaping maintenance for maintaining a fire-clearing zone would be minimal and would result in negligible GHG emissions.

Energy Sources

Energy use emissions typically include indirect GHG emissions associated with the generation of electricity from off-site fossil fuel power plants that supply energy to the CAISO electricity grid. A majority of the Project's energy demand would be associated with the battery system energy losses and auxiliary load necessary to operate the battery storage system. The battery system energy losses and auxiliary load includes energy needed to power HVAC units to control the temperature of the battery components, battery energy losses, inverter and transformer energy losses, and AC and DC wire losses. Energy consumption modeling, provided by the Applicant, is based on full build-out of a 2,000 MW capacity Li-ion battery storage facility. The facility would be served primarily by the CAISO.

GHG emissions associated with the auxiliary load were calculated using an emission rate of 0.428 MT CO2E per MWh as identified in CAISO's Greenhouse Gas Emission Tracking Methodology (CAISO 2016). This emission rate was assigned by CARB and is established in Section 95111(b)(1) of CARB's February 2014 update to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. This rate was established in 2014 when only 22.77 percent of California's total system power contained renewable energy sources. As of 2018, 32.35 percent of California's total system power was derived from renewable sources, and with the approval of SB 100, 100 percent of California's total system power will be derived from renewable sources by the year 2045. The emissions rate of 0.428 MT CO_2E per MWh assigned by CARB in 2014 does not reflect the State's renewable resources targets established in SB 100. Thus, the analysis adjusts the assigned emission rate proportionally to the RPS target schedule established in SB 100.

The Project would also install BTM (energy that is generated on-site for on-site use) solar PV facilities to offset as much of the battery system auxiliary loads as feasible. The installed capacity would depend on a number of factors including the amount of available space (rooftop and ground), and other economic and technological considerations. The energy-related GHG emissions that would be offset by the Project's BTM solar PV systems were calculated using CAISO emissions factors, and it is estimated that a range of 17,000 to 34,000 MWh would be produced annually at full build-out.

Waste and Wastewater

Water usage for the O&M facilities and personnel would be less than 10,000 gallons per day. Additionally, approximately 1,000,000 gallons of water would be stored on-site in storage tanks for fire suppression. Potable water would be delivered to the Project Site from a third-party water supplier that would require a maximum of two truck deliveries per month. Therefore, direct emissions associated with potable water deliver would be negligible. The water use of the Project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat water. Water use emissions are estimated based on regional efficiency factors for water supply, treatment, and distribution.

Solid Waste Generation

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. Battery energy storage facilities are not known to generate substantial quantities of biodegradable waste. Some amount of solid waste would be generated by employees and maintenance staff at the O&M building. The amount of solid waste generated was modeled using standard generation rates for light industrial uses.

Propane Fueled Emergency Generators

The Project would include propane-fueled emergency backup generators to augment the backup battery storage capacity, as well as BTM solar power generation during rare events in which the entire facility or portions of the facility, are disconnected from the electrical grid. The generators would be tested monthly to help ensure backup capacity in the event of a grid emergency. GHG emissions were calculated using EPA AP-42 emission factors and a fuel consumption rate of approximately 23 gallons per hour, based on specifications for a representative propane-fueled generator. The Project would include up to 20 generators. For the GHG emission calculations, it was assumed that each of the 20 generators would be tested once per month for a total operation time of two hours each month. The results in total annual operation time of 480 hours. Therefore, emergency generator testing would result in total annual emissions of approximately 62 $MTCO_2e$.

Decommissioning

The Project is anticipated to operate for a total of approximately 30 years from the construction of the final phase. At the end of the Project Site's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed, or it may seek an extension of its CUP. Project decommissioning emissions were not calculated, as the equipment and fuel types may change in the future. The overall impacts of decommissioning would be anticipated to be somewhat less than Project construction and operation. Overall, similar to construction and operations, emissions associated with decommissioning would be less than significant.

Potential impacts related to the generation of GHG emissions would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

b) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions?

The Project would generate GHG emissions associated with constructing and operating a utility scale energy storage facility, including electricity generation to be used on-site. As shown in Table 3.6-2, implementation of the Project has the capability to result in GHG reductions. Using 2020 and 2030 IID energy intensity factors, it was calculated that the Project could potentially offset 2,693 to 6,959 MTCO2e annually from traditional fossil fuel electricity generation. The Project would support the State's goal to increase use of renewable energy consistent with the RPS established by SB 100. As California procures increasing amounts of renewable energy to meet the goals of SB 100, the state will need to deploy a

significant amount of energy storage. Renewable energy resources such as wind and solar generate electricity intermittently. Energy storage allows utilities and system operators to manage the effect of intermittent renewable generation on the grid as a firm, dispatchable resource. Energy storage also allows excess solar energy produced during the day to be stored and dispatched optimally during peak evening hours or other periods of high demand. Thus, the Project would be consistent with state goals in AB 32 and the 2017 Scoping Plan for reducing GHG emissions from fossil fuel sources, as well as supporting meeting RPS requirements. The Project would not conflict with an applicable, plan, policy or regulation adopted for the purpose of reducing GHG emissions; therefore, impacts would be less than significant.

As shown in Table 3.6-2 above, the Project's annual GHG emissions would be less than the screening threshold of 90,718CO2E per year., Additionally, the Project would support the State's goal to increase use of renewable energy consistent with the RPS. In September 2018, the California Legislature passed SB 100, which set a goal aimed at eliminating fossil fuel from California's electricity generation and requires all the State's electricity resources to be carbon-free by 2045. The Project would serve as an integral component of the State's overarching renewable energy strategy by providing the necessary energy The Project would store energy generation from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services. The Project's Conceptual Site Plan (Figure 2.3-1) includes a representation of Li-ion buildings and containers, as well as flow buildings and containers. The components that make up the energy storage systems and common facilities require various preventative maintenance and at times corrective maintenance.

The Project would assist the State's goal of utilizing 100 percent renewable energy by 2045, which would result in a net decrease in use of fossil fuel and GHG emissions. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the regulatory and environmental setting for hazards and hazardous materials. It also describes potential impacts regarding hazards and hazardous materials that would result from implementation of the Project and includes mitigation measures for significant impacts, where applicable. The information provided in this section is based on the information provided in the Hazard Consequences Analysis Report prepared by Stantec (April 2020), and the Phase I Environmental Site Assessment (ESA) prepared by GS Lyon Consultants (March 2019), Appendix J.1 and Appendix J.2, respectively, of this EIR.

3.7.1 Regulatory Framework

3.7.1.1 Federal

Resource Conservation and Recovery Act of 1976 (42 USC et seq.)

The Resource Conservation and Recovery Act (RCRA) grants authority to the United States Environmental Protection Agency (EPA) to control hazardous waste from start to finish. This covers the production, transportation, treatment, storage, and disposal of hazardous waste. The RCRA amendments to the RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Project would routinely transport and use hazardous materials, including battery storage components and fuels such as gasoline. These components and materials would be necessary to support construction and operational activities apart of the Project. Disposal of battery components could contain potentially hazardous materials (USEPA 2020).

Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act, better known as the CWA, is a comprehensive statute focused on restoring and maintaining the chemical, physical, and biological integrity of the nation's waters (EPA 2002). Originally enacted in 1948, the CWA was amended numerous times until it was reorganized and expanded in 1972. It continues to be amended on an annual basis.

The primary authority for the implementation and enforcement of the CWA rests with the EPA. The CWA 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 states and tribes for their water quality programs. Programs have also been added to address water quality programs in specific regions and waterways.

Pursuant to CWA Section 402(p), the SWRCB has issued a Statewide NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Order No. 2009-0009-DWQ, NPDES No. CAR000002 Construction General Permit, adopted September 2, 2009, and modified by Order 2010-0014) (SWRCB 2008). Every construction project that disturbs one or more acres of land surface or that is part of a common plan of development or sale that disturbs more than one acre of land surface would require coverage under the Construction General Permit.

Occupational Safety and Health Act

Congress passed the Occupational Safety and Health Act (OSHA) to assure safe and healthful working conditions for the working men and women. OSHA authorizes enforcement of the standards developed under the Act and by assisted States in its efforts to assure safe and healthful working conditions. OSHA

also provides for research, information, education, and training in the field of occupational safety and health. The Project would be subject to OSHA requirements during construction, operations and maintenance, and decommissioning.

3.7.1.2 State

Title 22 of the California Code of Regulations

Hazardous Materials Defined

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, of it has characteristics as defined as hazardous by such agency (DTSC 2018). According to Title 22, Section 66260.10 of the CCR, a hazardous material is defined as:

> *…A substance or combination of substances which because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or, (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.*

This definition includes, but is not limited to, any chemical that requires a Material Safety Data Sheet (MSDS) or a Safety Data Sheet (SDS) per Hazardous Substances defined at Health and Safety Code 25501(q), materials listed in 49 CFR 172, and Hazardous Waste.

Chemical and physical properties that cause a substance to be considered hazardous include the properties of toxicity, ignitability, corrosivity, and reactivity (22 CCR sections 66261.20 through 66261.24). Factors that influence the health effects of exposure to hazardous materials include dosage, frequency, the exposure pathway, and individual susceptibility. The Project would require use of small amounts of hazardous materials, such as diesel fuel, gasoline, oil, and grease for heavy equipment, during construction, operations, and maintenance. The Project would use both flow and Li-ion battery technologies, each with fire protection systems designed in accordance with California Fire Code 2016 and will take into consideration the recommendations of the National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) and the State Water Resource Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste (CalEPA 2016). 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

The use of Li-ion batteries and small quantities of hazardous materials as part of the Project would be subject to state and local laws.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) has primary regulatory responsibility for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL; DTSC 2018). Enforcement is generally delegated to local jurisdictions that enter into agreements with DTSC; however, DTSC acts directly as the Certified Unified Program Agency (CUPA) for the County.

California's Secretary of Environmental Protection established a unified hazardous waste and hazardous materials management regulatory program as required by Health and Safety Code Chapter 6.11. The unified program consolidates, and coordinates the following six programs:

- Hazardous Waste Generations and Hazardous Waste On-Site Treatment
- Underground Storage Tanks
- Hazardous Material Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Aboveground Storage Tanks (spill control and countermeasure plan only)
- Uniform Fire Code Hazardous Material Management Plans and Inventories

The statute requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local CUPA is required to consolidate, coordinate, and make consistent the administrative requirements, permits, free structures, and inspection and enforcement activities for these six program elements within the county. Most CUPAs have been established as a function of a local environmental health or fire department.

The Office of the State Fire Marshal participates in all levels of the CUPA program including regulatory oversight, CUPA certifications, evaluations of the approved CUPAs, training, and education. The DTSC serves as the CUPA in the County.

Title 8, California Code of Regulations, Section 2700 et seq. "High Voltage Safety Orders"

Title 8 of the CCR specifies requirement and minimum standards for safety when installing, operating, working around, and maintaining electrical installations and equipment. The Project is subject to Title 8 regulations.

California Code of Regulations, Sections 1250-1258, "Fire Prevention Standards for Electric Utilities"

14 CCR provides specific exemptions from electric pole and tower firebreak. 14 CCR also provides conductor clearance standards and specifies when and where standards apply. These standards address hazards that could be caused by sparks from conductors of overhead lines, or that could result from direct contact between the line and combustible objects.

2016 California Fire Code

The 2016 CFC is an enforceable set of regulations for the safeguarding of public health, safety, and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations (CFC 2017).

3.7.1.3 Local

Imperial County General Plan

The County General Plan contains goals, objectives, policies, and programs created to minimize the risk associated with hazards and identify the potential natural and human induced hazards.

Seismic and Public Safety Element

Goal 3: Protect the public from exposure to hazardous materials and wastes.

> **Objective 3.1:** Discourage the transporting of hazardous materials/waste near or through residential areas and critical facilities.
>
> **Objective 3.2:** Minimize the possibility of hazardous materials/waste spills.
>
> **Objective 3.3:** Discourage incompatible development adjacent to sites and facilities for the production, storage, disposal, and transport of hazardous materials/waste as identified in the County General Plan and other regulations.
>
> **Objective 3.4:** Adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface water from toxic or hazardous materials and wastes.

Imperial County Office of Emergency Services – Emergency Operations Plan

The Imperial County Fire Department (ICFD) and Office of Emergency Services (OES) administer the emergency management program within the County. The County Emergency Operations Plan (EOP) provides a comprehensive, single source of guidance and procedures for the County to prepare for and respond to significant or catastrophic natural, environmental, or conflict-related risks that produce situations requiring coordinated response. It further provides guidance regarding management concepts relating to response and abatement of various emergency situations, identifies organizational structures and relationships, and describes responsibilities and functions necessary to protect life and property. The EOP is consistent with the requirements of the Standardized Emergency Management System (SEMS) as defined in Government Code Section 8607(a) and the U.S. Department of Homeland Security National Incident Management System (NIMS) for managing response to multi-agency and multi-jurisdictional emergencies. SEMS/NIMS incorporates the use of the Incident Command System (ICS), mutual aid, the operational area concept, and multi/interagency coordination.

3.7.2 Environmental Setting

The Project would provide a utility-scale battery energy storage complex with Li-ion battery systems, and/or flow battery technologies. The Project would be located north of the IV Substation and south of the Liebert Road and the Westside Main Canal intersection. The Project Site is located directly south of the Campo Verde solar generation facility.

3.7.2.1 Project Site

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) Report was prepared for the Project Site in conformance to ASTM Standard E1527-13 *"Standard Practice for Environmental Site Assessments: Phase I*

Environmental Site Assessment Process". The Phase I ESA was prepared to determine if any recognized environmental conditions, associated with past and present activities, are present within the boundaries of the Project property, or in its vicinity.

Transformers were noted on three power poles on the Project Site. No evidence of leakage from the transformers was noted and labels were affixed to the transformers indicating that the transformers do not contain polychlorinated biphenyl (PCB). The IID has tested all transformers in the Imperial Valley for PCB content and replaced those containing PCB's. Regulatory database review did not identify any recognized environmental conditions for the Project Site or within a one-mile radius.

The results of the Phase I ESA indicate the Project Site is located in an area of historical agriculture use. The Project Site is void of any structures and was utilized as active agricultural fields until the early 2000s, after which it has not been utilized for any agriculture purpose in the last 15 to 20 years. No recognized environmental conditions or historical recognized environmental conditions were identified during the Phase I ESA. GS Lyon Consultants Inc. identified the potential of residual pesticides, such as DDT (dichlorodiphenyltrichloroethylene) or DDE (dichlorodiphenyldichloroethylene), to be present in limited concentrations in surface soils, and determined that no further investigation was necessary.

Battery Storage System

The on-site battery storage system could deploy Li-ion, and/or flow batteries. The batteries could contain a variety of valuable metals, and recycling of these batteries is expected to become increasingly commonplace with the increased use of batteries in consumer goods and electric vehicles. Some batteries may have the capacity at the end of the operating life of the Project to be reused. The chemical components of flow batteries may either be disposed of as hazardous waste (i.e., neutralization of the liquid within the battery), or they may comprise valuable elements which would also be recycled or reused.

3.7.2.2 Valley Fever

Valley Fever is a disease caused by fungi, specifically *Coccidioides immitis* and *Coccidioides posadasii,* that grows in the soils of areas of southwestern California and southwestern U.S. Valley Fever is contracted through the inhalation of the microscopic fungal spores. The fungal spores become airborne through soil disturbance. Individuals in occupations such as construction, agriculture, and other soil disturbing activities have higher risks of exposure. With its location in the County, the soil underlying the Project Site, would fit the profile to harbor *Coccidioides immitis* and *Coccidioides posadasii* fungal spores (CDPH 2020).

3.7.3 Environmental Impacts

3.7.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA Guidelines, as listed in Appendix G. The Project would result in a significant impact to hazards and hazardous materials if it would result in any of the following:

a) Create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials?

b) 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?

3.7.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (see Appendix A of this EIR) since they were determined to be less than significant or no impact. They are briefly described in Chapter 7:

- Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- 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 it 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 two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area
- Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

3.7.3.3 Methodology

The analysis of hazardous materials is twofold: hazards potentially existing on the site parcels; and hazardous materials that would be used as part of Project construction, operations and maintenance, and decommissioning.

Potential existing hazards were assessed based on information contained in the Phase I Environmental Site Assessment Report (Appendix H.2). Potential hazards related to accidental upset conditions and the potential for offsite toxics migrations is assessed based on the information, modeling, and analysis contained in the Hazard Consequences Analysis Report (Appendix H1).

Some hazardous materials would be used on a short-term basis during construction and decommissioning. Others would be stored on-site for use during operation and maintenance. Some materials, such as the batteries, are not necessarily hazardous during use, but are classified as hazardous materials based on state disposal requirements. Therefore, this analysis was conducted by examining the choice and amount of chemicals to be used, the manner in which the Applicant would use the chemicals, the manner by which they would be transported to the facility, and the way in which the Applicant plans to store the materials on the site during construction, operation, and decommissioning. The greatest amount of chemicals used, transported, and stored on the Project Site parcels have the potential to occur during the Full Build-out Scenario (regardless of near-term or long-term), assuming the entire Project is constructed of Li-ion batteries. Therefore, the Full Build-out Scenario is considered the worst-case scenario for the purposes of this analysis.

3.7.3.4 Project Impacts and Mitigation Measures

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Construction of the Project would involve the routine use of hazardous materials such as equipment fuels (gasoline, diesel), oils and lubricants, and hydraulic fluid. These materials could be released during construction as a result of mishandling, accidents, or leaking equipment; however, existing regulations would require the Applicant (and by extension, the construction contractors) to monitor work areas for the release of hazardous materials and to take steps to prevent the release of contaminants into the surrounding environment.

During construction-related activities of the Project, fuels and other materials such as greases used with construction-related equipment may be stored on-site within locked aboveground containers within a fenced and secure staging area. The USEPA requires that any non-transportation related facility, if storing an aggregate aboveground oil storage capacity of more than 1,320 U.S. gallons in containers that are 55 gallons or greater, should submit a Spill Prevention, Control, and Countermeasure (SPCC) Plan (40 CFR §112). Project construction activities are not expected to store this amount of fuel; however, BMPs would be implemented to ensure any accidental spill is contained by providing secondary containment or similar measures. Trucks and construction vehicles, if serviced on-site, would also follow similar BMPS to prevent spill. The use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal, state, and County regulations. MSDSs for all applicable materials present on-site would be made readily available to on-site personnel.

Release of hazardous materials could also impact soil and water quality if conveyed by storm runoff. To prevent this from happening, Mitigation Measure HYD-1 would be implemented that requires preparation of a SWPPP prior to initiation of construction-related activities. Additional details of the SWPPP are provided in Section 3.8, Hydrology and Water Quality. Based on the above, construction related impacts would be less than significant with mitigation.

Operation

Operation of the Project would require the use of hazardous materials (such as pesticides or herbicides) only where necessary to manage vegetation. Materials containing electrolytes and graphite could also be transported during operation if replacement of batteries is needed. 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.

As part of the existing regulations, the Applicant would obtain an approved Hazardous Materials Business Plan) from the CUPA. This plan is used to provide information to the general population regarding hazardous materials at facilities and includes safe handling requirements, storage requirements, and periodic training requirements. Additionally, the plan also requires a release reporting requirement in the event that there is a reasonable belief that the release or threatened release poses a significant present or potential hazard to human health, safety, property, or the environment (County 2019). All chemicals stored on-site for operations would be included in the (hazardous materials business plan) HMBP.

Li-ion batteries may contain cobalt oxide, manganese dioxide, nickel oxide, carbon, electrolyte, graphite, and polyvinylidene fluoride. While one of these chemicals are considered extremely hazardous substances, the electrolyte and graphite would be considered hazardous because of its potential to ignite when reacts

with water. The U.S. Department of Transportation (DOT) regulates transport of Li-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. Li-ion batteries must conform to all applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water (DOT 2020).

Personnel training and personal protective equipment would be provided to all employees. To ensure compliance with the OSHA Emergency Action Plan Standard, 29 CFR 1910.38, and to prepare personnel for dealing with emergency situations, an emergency action plan would be developed. This emergency action plan would be developed to effectively address all emergencies that may be reasonably expected to occur at the BESS. Such a plan may include a designated emergency coordinator who would be responsible for notification of emergency personnel and safely evacuating Project employees, as well as the proper use of fire extinguishers (if applicable). All personnel working on-site would receive instruction and training on the emergency action plan. Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams would minimize any public hazard related to transport, use, or disposal of hazardous materials during operations.

The BTM solar generation may be constructed using PV panels that contain a thin semiconductor layer containing cadmium telluride (CdTe). While CdTe itself is a hazardous substance in an isolated form, the CdTe in the PV panels is bound and sealed within the glass sheets and a laminate material. During the PV module manufacturing process, CdTe is bound under high temperature to a sheet of glass by vapor transport deposition, coated with an industrial laminate material, insulated with solar edge tape, and covered with a second sheet of glass. The module design results in the encapsulation of the semiconductor material between two sheets of glass thereby preventing the exposure of CdTe to the environment. Studies indicate that unless the PV module is purposefully ground to a fine dust, use of CdTe in PV modules do not generate any emissions of CdTe (Fthenakis 2003). CdTe PV modules, therefore, do not present an environmental risk during operations. CdTe releases are also unlikely to occur during accidental breakage or fire due to the high chemical and thermal stability of CdTe.

Alternatively, the BTM solar generation may be constructed using PV panels that contain a layer containing polycrystalline silicon material. This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). In the manufacturing process, the polycrystalline silicon is encapsulated from the top and bottom with an industrial laminate material then covered with a sheet of tempered glass on top. The back of the panel is covered with an insulating layer of polymer laminate to protect against electrical shock with boosting the efficiency of the panel. This back sheet could also be a second layer of tempered glass which allows for reflected light to pass through. These are called bifacial modules, and they can produce power from light hitting the panel from above and below. The entire module is contained within a powder-coated aluminum frame and sealed to be water-tight.

With enforcement of federal, state, and County regulations, employee training, potential for accident conditions as part of use and storage during operation of the BESS, operation of the Project would be less than significant.

Decommissioning

At the end of the 40-year Project CUP lifespan, decommissioning activities would be undertaken. Following expiration of the CUP, reissuance of the CUP would be possible by the Applicant or successor-in-interest. Decommissioning activities of the Project would apply to those portions of the Project that involve operational components, including, but not limited to, an electrical switching station, substation, battery modules, inverters, transformers, and PV modules. All operational components would be disassembled and removed, with all materials recycled, reused, or disposed of appropriately. A number of solar panel

manufacturers have joined recycling associations for voluntary take-back and recycling of photovoltaic modules. These recycling centers will disassemble the panels and recycle all main components. All solar panels located at the Project Site will be removed and transported to a recycling facility, for safe recapture of the metals and polycrystalline silicon for re-use and/or responsible disposal. The transport and disposal of hazardous materials during decommissioning of the facility would be carried out in accordance with federal, State, and County regulations.

Compliance with existing hazardous materials regulations and CUPA permitting would ensure that the potential for the Project to create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials would be less than significant during the construction, operations, and decommissioning.

Mitigation Measures

Implement Mitigation Measure AIR-1 and HYD-1.

Level of Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts of hazardous materials to less-than-significant levels.

b) 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?

Construction

As discussed under Impact Analysis (a), the Project is not expected to cause a significant hazard to the public or the environment through the transport, use, or disposal of hazardous materials, largely because the Project will not transport, use, or dispose such materials in meaningful quantities. Construction-related activities would require the limited use of hazardous materials that could result in potential adverse health and environmental impacts if these materials were released into the environment, implementation of construction-related water quality BMPs (implemented as part of the Project's SWPPP) would reduce the potential for such releases and ensure quick response to any spills such that impacts would be less than significant. In addition, a SPCC or BMPs to address accidental fuel spills during construction would be implemented to reduce impacts from the release of hazardous materials into the environment.

The Site was farmed from 1953 through 2005 or 2006. The Phase I ESA noted that, based on the historical use of the Site, residues of currently available pesticides and currently banned pesticides, such as DDT/DDE may be present in near surface soils in limited concentrations. The concentrations of these pesticides found on other Imperial Valley agricultural sites are typically less than 25 percent of the current regulatory threshold limits and, at those levels, are not considered a significant environmental hazard. The presence and concentration of near surface pesticides at the Project Site can be accurately characterized only by site-specific sampling. However, the Phase I ESA did not consider this as a recognized environmental condition. While chemical retention in surface and subsurface soils could be of concern, a majority of agricultural chemicals degrade rapidly in the presence of ultraviolet light from the sun. Furthermore, most newer-formulated chemicals have lower retention time, especially at the lower application concentrations directed by regulatory agencies. No soil remediation was recommended. This is considered a de minimis condition. Therefore, impacts associated with release of herbicides/pesticides during construction are considered less than significant.

It is possible that previously unknown hazardous materials could be released during ground clearance or disturbing activities during construction. The Project Site has been used for illegal dumping in the past. The Project Site exhibits dumped materials ranging from unwanted clothing and toys to construction materials, abandoned vehicles, and broken appliances. The Phase I ESA did not identify any recognized environmental conditions in connection with the Project Site, and as such, no further investigation was recommended. Transformers were noted on three power poles on the Project Site. As noted in Phase I ESA, all transformers containing PCBs have been replaced by IID. Therefore, if during construction activities, on-site transformers require removal, would not result in release of hazardous chemicals into the environment. The potential for disturbing undocumented subsurface utilities or structures would be further reduced by screening for subsurface structures in areas prior to commencement of subsurface work as required by California Government Code Section 4216.

Construction activities, including grading and construction vehicle traffic, would generate fugitive dust and could expose construction personnel to potential health hazards associated with the Valley Fever during high winds. Extended periods of high heat or unusually windy conditions could increase fugitive dust and the resulting potential for exposure to the Coccidioides fungus. As a result, sensitive receptors could be exposed to potential health hazards during Project construction, resulting in a potentially significant impact.

The Project will minimize the generation of fugitive dust during these activities by complying with IPAPCD's regulations and implementing standard construction BMPs. The Project would implement Mitigation Measures AIR-1 for dust suppression measures as noted in Section 4.3, Air Quality. This measure would minimize the likelihood or extent of fugitive dust, thereby reducing the potential for exposure to the Coccidioides fungus. When exposure to dust is unavoidable, employers must provide National Institute of Occupational Safety and Health (NIOSH)-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or high-efficiency particulate arrestance (HEPA), and employers must develop and implement a respiratory protection program in accordance with California's Occupational Safety & Health Administration's (Cal/OSHA) Respiratory Protection standard (8 CCR 5144). The Project would comply with this requirement if needed.

Therefore, construction activities would result in a less than significant impact with regard to accidental release of hazardous substances in the environment.

Operation

The Project is not anticipated to store large quantities of chemicals during operations. However, if the Project would store hazardous substances exceeding regulatory thresholds, the Applicant would be required to prepare and submit a HMBP and obtain hazardous materials permits from CUPA. These permits would include preventive requirements and best practices for the use of hazardous materials related to the Project. CUPA requires a HMBP for any facility that stores 55 gallons of a hazardous liquid material, 500 pounds of a hazardous solid material, or 200 cubic feet of a hazardous gaseous material. The HMBP would detail the location and quantities of hazardous materials stored onsite. MSDSs for all applicable materials would be present on-site. That information would be made available to emergency responders such as firefighters and medical personnel, who would, in part, use such information to contain the hazardous materials and avoid the creation of a significant hazard.

While the Project is not expected to store regulated substances in quantities greater than the threshold quantities, there may be potential upset and accident conditions with a risk of initiating a thermal runaway[1] (fire/explosion) event if Li-ion batteries are used. Potential upset and accident conditions include fire that

[1] Thermal runaway describes a process that is accelerated by increased temperature, in turn releasing energy that further increases temperature.

results from overheating within the battery energy storage system. A hazard consequences analysis was prepared to determine impacts resulting from the release of air toxics from a credible fire or thermal runaway event at the Project Site. There are four hazardous substances that are potentially released during a thermal runaway event and include hydrogen chloride, hydrogen fluoride, hydrogen cyanide, and carbon monoxide. These air toxics were analyzed using Areal Locations of Hazardous Atmospheres (ALOHA) modeling to determine the characteristics of emissions, possible smoke or emissions plume under several weather and wind scenarios, and potential exposure impacts to population and animals within the plume area. The results of this off-site consequence analysis showed that should an accidental event occur, the toxic endpoint distance would be approximately 33 feet from the toxic release point. The distance to the toxic endpoint is the distance a toxic vapor cloud, heat from a fire, or blast waves from an explosion will travel before dissipating to the point where serious injuries from short-term exposures would no longer occur. The nearest sensitive receptor is a single-family residence approximately 4,000 feet northeast from the Project Site boundary, far beyond the potential for harm from a thermal runaway hazard.

In addition, fire protection systems for the BESS will be designed in accordance with California Fire Code 2016 and will take into consideration the recommendations of the NFPA 855. Depending on the technology used, fire suppression agents, such as Novec 1230 or FM 200, or water may be used as a suppressant. In addition, fire prevention methods will be implemented to reduce potential fire risk, including voltage, current and temperature alarms. Energy storage equipment will comply with UL-9540 and will account for the results of UL-9540A. As noted in Section 2.0, Project Description, as applicable, fire suppression methods would be installed such as sprinklers, redundant separate methods of failure detection, and alarms from the BMS. Detection methods for off gas detection will be implemented, as applicable. These are in addition to other protective measures such as ventilation, overcurrent protection, battery controls operating batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in accordance with manufacturer guidelines. Flow battery tanks are not susceptible to fire but would be designed to have secondary containment in the event of a failure.

Certain major manufacturers do not have built-in fire suppression systems and hazards of a battery fire at the Site-level are managed by standard fire service response equipment because they use outdoor enclosures that are not buildings. If such a system would be installed for energy storage, the hazards from a battery fire at the Site-level would be managed by standard fire service response equipment. In addition, an Incidence Response Plan will be implemented depending upon the technology installed for each phase. Additionally, the Project intends to commit to contribute its proportionate share to purchase, a Type 1 Fire Engine which shall meet all NFPA standards for structural firefighting for the ICFD.

Potential CdTe emissions from fire are unlikely to occur at the Project Site because of the general lack of fuel to support a sustained wildfire and the regular vegetation management activities that would occur as part of the Project. Grass fires are the most likely fire exposure scenario for ground mounted PV systems, and these fires tend to be short-lived “flash” fires due to the thinness of grass fuels. As a result, these fires are unlikely to expose PV modules to prolonged fire conditions or to temperatures high enough to volatilize CdTe (which has a melting point of 1,906˚F). Moreover, even if a wildfire could reach that temperature, the actual CdTe emissions from a PV module would be insignificant (approximately 0.04 percent) due to encapsulation in the molten glass matrix (Fthenakis 2003).

In the event of an accidental upset condition, the estimated maximum toxic endpoint distance is primarily within the Project Site’s boundary but could extend to the adjacent undeveloped parcel (APN 051-350-011), which is also controlled by CED Westside Canal Battery Storage, LLC. No schools or residences are located within the estimated maximum toxic endpoint boundary. Also, the endpoint would not reach the Westside Main Canal as no batteries would be stored within 10 meters of the water. Therefore, Project-related operational impacts would be less than significant.

Decommissioning

At the end of the 40-year term of the CUP all operational components would be disassembled and removed, with all materials recycled, reused, or disposed of appropriately. At the end of a Li-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.

Flow batteries have an expected lifecycle of over 20 years, as the electrolyte does not degrade over time. All aspects of the flow battery are capable of being recycled using currently existing processes available in the U.S. The electrolyte itself can be re-used in other batteries, the salts can be recovered for industrial use or disposed of directly in event that recovery options are uneconomic. Other chemistries that have the potential to be more toxic, such as vanadium, would be decommissioned and recycled per manufacturer and industry guidelines and best practices. All electrolytes will be handled per their designated MSDS.

Therefore, potential impacts associated with the release of hazardous materials from construction, operation, and decommissioning would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

3.8 HYDROLOGY AND WATER QUALITY

This section describes the regulatory setting and current conditions of the Project Site related to hydrology and water quality. 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 Project, and mitigation measures where appropriate. Information in this section is based in part on the Preliminary Drainage Study, prepared by Burns & McDonnell (April 2020). This technical report is hereby incorporated by reference and included as Appendix I of this EIR.

3.8.1 Regulatory Framework

3.8.1.1 Federal

Federal Clean Water Act

The federal Clean Water Act (CWA) of 1977 (33 U.S. Code Section 1251 et seq.), which amended the federal Water Pollution Control Act of 1972, established the basic structure for regulating discharges of pollutants into the waters of the United States (not including groundwater). The CWA delegates authority to the USEPA to implement pollution control programs. Under the CWA, it is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained and implemented in compliance. In addition, the CWA requires that states adopt water quality standards (WQS) for water bodies and that those standards be approved by USEPA. Water quality standards consist of two components: designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), and water quality criteria necessary to support those uses. The following sections outline the various elements of the CWA that apply to the Project.

Water Quality Criteria and Standards

The USEPA is the federal agency with authority for implementing the regulations adopted under the CWA. The USEPA has delegated its authority to implement and oversee most of the programs authorized or adopted for CWA compliance to the State of California through the Porter-Cologne Act, described further below.

Under federal law, the USEPA has published water quality regulations in the Code of Federal Regulations within Volume 40. CWA Section 303 requires all states to adopt water quality standards for all surface waters of the United States. The CWA defines water quality standards as the designated beneficial uses of a particular water body and associated criteria which protect the designated beneficial uses. CWA Section 304(a) requires the USEPA to determine and 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. For water bodies that have multiple uses, water quality standards must protect the most sensitive use.

Section 303: Impaired Water Bodies (303(d) list) and Total Maximum Daily Loads

The SWRCB is required by Section 303 of the CWA to publish a list of impaired water bodies which do not meet water quality standards (promulgated under the National Toxics Rule [NTR] or the California Toxics Rule [CTR]) after a minimum of technology-based effluent limitation strategies have been implemented for known point sources. The waterbodies on these lists are ranked for their potential development of a total maximum daily load (TMDL). TMDL is a calculation of the total maximum amount of a pollutant that a water body can receive daily and still safely meet water quality standards. The California Regional Water Quality

Control Board (RWQCB) and USEPA are responsible for establishing TMDL waste-load allocations and incorporating improved load allocations into water quality control plans, NPDES permits, and waste discharge requirements, described further below under State regulations. Section 305(b) of the CWA requires that states assess the status of water quality conditions within the State in a report to be submitted every two years.

Section 402: National Pollutant Discharge Elimination System Permits

Section 402 of the CWA requires the USEPA to establish regulations for permitting of construction, municipal, and industrial storm water discharges under the NPDES permit program. The NPDES program requires all industrial facilities and municipalities of a certain size that discharge pollutants into waters of the U.S. to obtain a permit. Storm water discharges in California are commonly regulated through general and individual NPDES permits, which are adopted by the SWRCB or RWQCBs and are administered by the RWQCBs. Water quality criteria in NPDES permits for discharges to receiving waters are based on criteria specified in the NTR, the CTR, and Water Quality Control Plans (Basin Plans), discussed below under State regulations.

U.S. Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for issuing permits for the placement of fill or discharge of material into waters of the United States. These permits are required under Sections 401 and 404 of the CWA. Water supply projects that involve stream construction, such as dams or other types of diversion structures, trigger the need for these permits and related environmental reviews by the USACE. The USACE is also responsible for flood control planning and assisting state and local agencies with the design and funding of local flood control projects.

Section 401: Water Quality Certification. Section 401 of the CWA requires that an applicant which is pursuing a federal permit to conduct an activity that may result in a discharge of a pollutant obtain a Water Quality Certification (or waiver). For the Project, the federal permit associated with the Project is a Clean Water Act Section 404 permit, discussed further below. A Water Quality Certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. The Water Quality Certifications are issued by one of the nine geographically separated RWQCBs in California. For the Project, the Colorado River Regional Water Quality Control Board (Region 7) has jurisdiction. Under the CWA, the RWQCB must issue or waive a Section 401 Water Quality Certification for a project to be permitted under CWA Section 404.

Section 404: Discharge of Dredged or Fill Materials. Section 404 of the CWA regulates fill and disturbance of wetlands and waters of the United States, specific activities that are regulated are fills for development (including physical alterations to drainages to accommodate storm drainage, stabilization, and flood control improvements), water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry.

3.8.1.2 State

State Water Resources Control Board

In California, the State Water Resources Control Board (SWRCB) has authority over issues related to controlling water quality for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt basin plans for all areas in the region and establish water quality objectives in the plans. California water quality objectives (or “criteria” under the CWA) are found in the

basin plans adopted by the SWRCB and each of the nine RWQCBs. The Colorado River RWQCB is responsible for the study area and surrounding region.

Colorado River Regional Water Quality Control Board Basin Plan

The study area is within the jurisdiction of the Colorado River RWQCB, which is responsible for the preparation and implementation of the water quality control plan for the Colorado River Region (SWRCB 2019a). The Basin Plan defines the beneficial uses, water quality objectives, implementation programs, and surveillance and monitoring programs for waters of all Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The Basin Plan contains specific numeric water quality objectives that apply to certain water bodies or portions of water bodies. Objectives have been established for aesthetic qualities, tainting substances, toxicity, temperature, pH, dissolved oxygen, suspended and settleable solids, total dissolved solids, bacteria, biostimulatory substances, sediment, turbidity, radioactivity, and chemical constituents. Numerous narrative water quality objectives have also been established.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDR), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to reports of waste discharge and/or WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update basin plans.

NPDES Permit System and Waste Discharge Requirements for Construction

The SWRCB and Colorado River RWQCB have adopted specific NPDES permits for a variety of activities that have potential to discharge wastes to waters of the State. The SWRCB General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009- Division of Water Quality) applies to all land-disturbing construction activities that would affect one acre or more.

Construction activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The permit also requires dischargers to install post-construction permanent BMPs that would remain in service to protect water quality throughout the life of the Project consistent with the planning and land development requirements of the MS4 Permit. Types of BMPs include source controls, treatment controls, and site planning measures.

Activities subject to the NPDES general permit for construction activity must develop and implement a SWPPP. The SWPPP includes a site map and description of construction activities and identifies the BMPs that will be employed to prevent soil erosion and discharge of other construction-related pollutants, such as petroleum products, solvents, paints, and cement, that could contaminate nearby water resources. A monitoring program is generally required to ensure that BMPs are implemented according to the SWPPP and are effective at controlling discharges of pollutants that are related to stormwater.

Construction General Permit

Pursuant to CWA Section 402(p) and as related to the goals of the Porter-Cologne Water Quality Control Act, the SWRCB has issued a Statewide NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Order No. 2009-0009-DWQ, NPDES No. CAR000002 Construction General Permit, adopted September 2, 2009, and modified by Order 2010-0014). Every construction project that disturbs one or more acres of land surface or that is part of a common plan of development or sale that disturbs more than one acre of land surface would require coverage under this Construction General Permit. To obtain coverage under this Construction General Permit, the landowner or other applicable entity must file Permit Registration Documents prior to the commencement of construction activity, which include a Notice of Intent (NOI) and SWPPP and mail the appropriate permit fee to the SWRCB. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least one acre of total land area.

3.8.1.3 Local

Imperial County General Plan

The Imperial County General Plan contains goals, objectives, policies, and programs created to ensure water resources are preserved and protected.

Conservation and Open Space Element

The following goals and objectives from the County's Conservation and Open Space Element are applicable to the Project.

> **Goal 6.** The County will conserve, protect, and enhance water resources in the County.
>
> **Objective 6.2:** Ensure proper drainage and provide accommodation for storm runoff from urban and other developed areas in manners compatible with requirements to provide necessary agricultural drainage.

Water Element

The following policies and programs from the County's Water Element are applicable to the Project.

> **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.
>
> **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.
>
> **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.

Imperial County Land Use Ordinance, Title 9

Division 22 of Title 9 of the Land Use Ordinance contains groundwater requirements. The focus of this division is to preserve, protect and manage the groundwater within the County.

Division 31 of Title 9 of the Land Use Ordinance contains stormwater control requirements. The purpose of this Division is to ensure the health, safety and general welfare of citizens, and to protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. § 1251 et seq.) and the Porter-Cologne Water Quality Control Act (Water Code § 13000 et seq.) by reducing pollutants in storm water discharges to the maximum extent practicable and by effectively prohibiting non-storm water discharges to the storm water conveyance system.

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

The Engineering Design Guidelines Manual establishes uniform engineering design guidelines for the preparation and plan checking of street improvement plans, drainage, and grading plans, and includes standards and design guidelines for use within the unincorporated areas of Imperial County. It is intended to assist the engineer, developer and/or architect in preparing these plans for private development projects within the County, to assist the Department of Public Works (DPW) staff for their review of the same, and to provide standards and specifications that meet current engineering standards of practice.

Local Agency Management Program/Advanced Protection Management Program: Onsite Wastewater Treatment Systems

The Local Agency Management Program (LAMP) Advanced Protection Management Program (APMP) was designed as a customized management program for On-Site Wastewater Treatment Systems (OWTS) in the County and addressed the County's diversity of geology, population, community areas, and future land use planning considerations. Approximately 85 percent of the County is connected to a sanitary sewer system, while the remainder utilize private septic systems. The OWTS includes standards for both existing and new septic systems, including siting locations, setbacks from an irrigation supply canal, soil conditions, percolation rates, projected flows, leach field design, and other such factors.

3.8.2 Environmental Setting

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California. It includes all Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. A significant geographical feature of the Colorado River Basin Region is the Salton Trough, which contains the Salton Sea and the Coachella and Imperial Valleys. The Colorado River Basin Region has the driest climate in California, characterized by mild winters and extremely hot summers with an average annual temperature of 73 degrees and a mean daily high of 108 degrees in July. The typical mean seasonal precipitation within the desert valleys is less than three inches per year, but its distribution and intensity are often sporadic. Annual precipitation in the region ranges from eight inches in the Coyote Mountains to less than three inches over most of the area (Basin Plan). Localized thunderstorms may contribute to all the average seasonal precipitation in one storm event, or conversely only a trace of precipitation may be recorded at any locale for the entire season. Little of the rainwater percolates into the groundwater, and almost all is lost to evaporation and evapotranspiration. The Colorado River Basin Region is divided into the following seven major planning areas based on different economic and hydrologic characteristics. The Project Site lies within the Imperial Valley Planning Area.

3.8.2.1 Hydrologic Unit

According to the Basin Plan, the Project is located within the Imperial Hydrologic Unit, Brawly Hydrologic Area (Code Section 723.10). The Imperial Hydrologic Unit consists of the majority of the Imperial Valley, encompassing over 1.3 million acres of land. The watershed includes vast acreages of agricultural land and towns such as El Centro, Calexico, and Brawley, along with a large network of IID operated canals and drains. The watershed is atypical of most watersheds in California, as it currently and historically has been

shaped by man-made forces. The watershed's primary watercourses, the New and Alamo Rivers flow north, from the Mexican border toward their destination, the Salton Sea.

3.8.2.2 Water Quality

Outlined in the Basin Plan and indicated on the CWA Section 303(d) list, the Project's nearest waters are classified as the Imperial Valley Drains (CalEPA 2014, 2016a). As outlined in Table 2-3 of the Basin Plan, the Imperial Valley Drains have the following beneficial uses.

- FRSH – Freshwater Replenishment
- REC I – Water Contact Recreation (unauthorized, infrequent fishing activity)
- REC II – Non-contact Water Recreation (unauthorized)
- WARM – Warm Freshwater Habitat
- WILD – Wildlife Habitat
- RARE – Preservation of Rare, Threatened, or Endangered Species (applies to a subset of the drains)

According to California's 2014/2016 303(d) listing, the Imperial Valley Drains are impaired for Pesticides (Chlordane, DDT, Dieldrin, and Toxaphene), Other Organics (PCBs), Metals/Metalloids (Selenium), and Sedimentation/Siltation (CalEPA 2014, 2016a). However, a number of these impairments apply only to a smaller subset of the drains. For example, the listing for Chlordane only applies to the Barbara Worth Drain, Peach Drain, Greeson Drain, South Central Drain, and Holtville Main Drain areas of the Imperial Valley Drain area. The segment of the Westside Main Canal (the nearest drain area to the Project) is not listed on the 303(d) list.

3.8.2.3 Project Site

As defined by FEMA, the Project Site is in Flood "Zone X (Unshaded)," delineated on Map No. 06025C2050C. Flood Zone X (Unshaded) is defined as an area of minimal flood hazard, an area outside the Special Flood Hazard Area, and higher than the elevation of the 0.2 percent annual chance flood (Appendix I).

Under existing conditions, the Site is a vacant and fallow historic agricultural field consisting of sandy soils with minimal vegetation and no impervious cover. The Site is divided into eastern and western halves by an existing transmission corridor that follows the Liebert Road alignment. The western portion of the Site slopes from the southeast to the northwest while the eastern portion of the Site slopes from the southwest to the northeast. The Site is relatively flat with slopes varying from 0.2 percent to 2.5 percent. The Site currently has a berm along the western and southern boundaries which divert all offsite flows around the Site. The berm elevation on the western portion varies from approximately 10 to 15 feet above adjacent grade. The berm along the southern boundary is approximately three feet in height.

Groundwater

The Project Site overlays the Imperial Valley groundwater basin (Code 7-30). The basin is bounded by the Salton Sea to the north, the Fish Creek and Coyote Mountains to the west, and by the Sand Hills to the east (DWR 2004). The southern physical boundary of the basin extends across the United States border into Mexico; but for regulatory purposes, the southern border of this groundwater basin is considered the international border. Salton Sea is the discharge point for groundwater in the basin.

This basin is made of three principal physiographic and hydrologic areas that include: (1) the Central Irrigated Area, which lies within the valley floor generally inside the boundaries of Lake Cahuilla; (2) the East Mesa; and (3) the West Mesa. The total storage capacity of the basin is estimated at approximately 14 million acre-feet (DWR 2004). Groundwater recharge within the basin is primarily from irrigation return.

Other recharge sources are deep percolation of rainfall and surface runoff, underflow into the basin, and seepage from unlined canals which traverse the valley. Groundwater levels within most of the basin have remained stable from 1970 to 1990 because of relatively constant recharge and an extensive network of subsurface drains. Groundwater quality varies extensively throughout the basin; however, it is generally unusable for domestic and irrigation purposes without treatment (DWR 2014). Groundwater depths over this larger basin may fluctuate slightly from year to year, but this is not typically associated with seasonal precipitation due to its minimal contribution to groundwater recharge. County standards for siting new and replacement OWTS require consideration of localized fluctuations or mounding that may occur due to nearby flood irrigation activities. Within the Project Site, groundwater was encountered between nine and 19 feet below the existing ground surface.

3.8.3 Environmental Impacts

3.8.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA Guidelines. The Project would result in a significant impact to hydrology and water quality if it would result in any of the following:

a) Violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality

b) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would:

   i. Result in substantial erosion or siltation on- of off-site

   ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

   iii. 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

   iv. Impede or redirect flood flows

3.8.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (Appendix A), since they were determined to result in less than significant or no impact, as briefly described in Chapter 7:

- 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

- In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation

- Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

3.8.3.3 Methodology

The analysis of impacts to hydrology and water quality is based on the results from the Preliminary Drainage Study, the physical characteristics of the Imperial Valley Planning Area watershed, and groundwater basin. The drainage design will be conducted in accordance with the County's design criteria, which establishes that 100 percent of the 100-year storm (3 inches of rain) will be stored for percolation.

3.8.3.4 Project Impacts and Mitigation Measures

a) Would the Project violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction

Clearing, grading, excavation, and construction activities have the potential to impact water quality through soil erosion and increased silt and debris discharged via surface runoff. Additionally, the use of construction materials such as fuels, solvents, and paints may present a risk to surface water quality. Temporary storage of construction materials and equipment in work areas or staging areas could also create the potential for a release of hazardous materials, trash, or sediment to Westside Main Canal. In addition, the Project would require water connections to the Westside Main Canal and could result in direct discharge of materials into the Westside Main Canal during construction of the water connections. 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 Westside Main Canal and could result in the accumulation of these pollutants in the receiving waters. This is considered a potentially significant impact.

Since construction of the Project would result in disturbance of an area greater than one acre, the Project Applicant would be required to enroll for coverage under the Storm Water Construction General Permit for the NPDES program. The Storm Water Construction General Permit requires the submittal of Permit Registration Documents to the SWRCB prior to the start of construction and a NOI, risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations would be included in the submittal. A Project-specific SWPPP would be prepared and BMPs would be implemented during construction. Typical BMPs would include diversion of runoff from disturbed areas, protective measures for sensitive areas, temporary soil stabilization measures, storm water runoff quality control measures, concrete waste management, watering for dust control, and installation of perimeter silt fences, as needed. New requirements by the SWRCB also require the SWPPP to include post-construction treatment measures aimed at minimizing stormwater runoff. Implementation of MM HYD-1, which requires compliance with the Construction General Permit and preparation and implementation of a SWPPP and its BMPs, would reduce potential erosion and sedimentation-related water quality impacts to a less-than-significant level. In addition, as noted in Section 3.4, Biological Resources, a USACE 404 Clean Water Permit, CDFW Streambed Alteration Agreement, and RWQCB 401 Water Quality Certification would be required to install water connections to the Westside Main Canal for construction and fire. Therefore, construction of the Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Operational

During operations, the Project could result in discharge of non-point source water quality impacts from potential pollutants including, but not limited to, oil and grease, pesticides, trace metals, and nutrients. Long-term operation of the energy storage facility and an increase in impervious surfaces also poses a threat to surface water quality after the completion of construction. This could result significant direct and indirect impacts related to a violation of water quality standards or waste discharge requirements.

Due to the increase in impervious area, retention basins would be constructed to capture the increase in runoff. The Site would be graded to divert on-site flows to retention basins via roadside swales. Culverts would be installed under roadway/driveway crossings to connect the drainage swales. The retention basins would be in the northeast and northwest corners of the Site at the historic discharge locations. The Westside Main Canal bounds the Project to the north and has elevated banks approximately two feet tall which prevents runoff from leaving the Site. However, if the stormwater ponds to a height to overtop the Westside Main Canal bank, then it would degrade the water quality.

Proposed battery storage structures and equipment pads would need to be elevated above the ultimate outfall elevation at the top of the bank. The retention basins would be designed such that stormwater will percolate within 72 hours in accordance with County requirements. A geotechnical study would be performed as part of final design to verify the infiltration rates. If testing shows poor infiltration rates for the basins, injection/dry wells would be installed as needed to meet the 72-hour percolation requirement. Implementation of MM HYD-2 would require the Project to incorporate post-construction BMPs into the Project's final drainage plan that would include but not limited to, source control, and treatment control BMPs. Impacts would be reduced to less than significant with mitigation.

The County Public Health Department coordinates with the Colorado River RWQCB to permit OWTSs on new development projects. An OWTS permit from the Public Health Department would be required prior to the construction of the on-site septic leach field system proposed to support the O&M building. The Project Site lies within Imperial Valley groundwater basin but is outside the basin's areas of special concern for high nitrate levels (PHD 2015). Approval of an OWTS permit from the County for the septic system would require compliance with requirements identified in the LAMP and reduce potential impacts on water quality standards, waste discharge, or degradation of surface or groundwater quality to a less than significant level.

Decommissioning

Decommissioning would remove some Project components, and the potential impacts would be similar to those of the construction phase. The approved SWPPP (MM HYD-1) would be implemented during decommissioning phase, reducing potentially significant impacts to a less than significant level.

Mitigation Measures

MM HYD-1: Prepare Stormwater Pollution Prevention Plan and Implement Best Management Practices

Prior to issuance of any grading permit, the Applicant or its contractor shall prepare a Project-specific SWPPP and be responsible for securing coverage under SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ). The SWPPP shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during both the construction and decommissioning of the Project. Example BMPs may include but are not limited to the following practices:

- Designation of restricted-entry zones
- Sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance)
- Truck washdown areas
- Diversion of runoff away from disturbed areas
- Protective measures for sensitive areas, outlet protection

- Provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area
- Treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds

MM HYD-2: Final Project Drainage Plan

Prior to issuance of any grading permit, the applicant shall submit a Final Project Drainage Plan. The 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 discharge of stormwater to the proposed retention basins. Retention basins shall 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 the Project's impervious surfaces, as necessary.

Level of Significance After Mitigation

With the implementation of MM HYD-1, impacts to surface water quality would be reduced to a less-than-significant level through the inclusion of focused BMPs for the protection of surface water resources from both construction and decommissioning. With the implementation of MM HYD-2, potential water quality impacts resulting from post-construction discharges would be reduced to a less-than-significant level by incorporating the post-construction BMPs into the Project's Final Drainage Plan.

b) 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 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 in a manner which would result in flooding on- or off-site; 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; or impede or redirect flood flows?

i) Erosion or Siltation On-site or Off-site

Construction

The Project would disturb more than one acre of land during construction and result in grading and soil exposure at the Project Site, increasing the potential for erosion. If not controlled, the transport of these materials into local waterways could increase suspended sediment concentrations. MM HYD-1 would require preparation of a SWPPP in accordance with the NPDES Construction General Permit. The SWPPP would identify BMPs, such as the use of temporary mulching, seeding, or other stabilization measures to protect uncovered soils, and storing materials and equipment to ensure that spills or leaks cannot enter the Westside Main Canal. With incorporation of MM HYD-1, potential construction-related erosion impacts would be reduced to a less than significant level.

Operation

Operation of the Project would alter existing on-site drainage patterns with the addition of new impervious surfaces at the Project Site. The addition of new impervious surfaces could increase the rate and volume of stormwater runoff at the Project Site and potentially cause erosion. However, the Project Site experiences very low annual rainfall (on average three inches per), and as a result, the soils are rarely saturated to the point that any measurable runoff can be generated. Furthermore, most of the rainwater that would run off

the impervious Project facilities (e.g., concrete pads or other impervious improvements) would run off onto the proposed retention basin and infiltrate into the ground. Therefore, the amount of land converted to impervious surfaces that would reduce water infiltration and potentially impact existing drainage would be minimal. The impact of the Project operation on the existing erosion or siltation processes would be less than significant.

Decommissioning

Decommissioning activities would require earth-moving activities that could contribute to soil erosion and/or release of sediment. Earth-moving activities would be similar to construction activities. During decommissioning, soil erosion would be controlled by implementation of Mitigation Measure HYD-1. In addition, the retention basins would continue to receive stormwater from the site and not result in siltation on-site or off-site and impacts would be less than significant with mitigation.

ii) Result in Flooding On- or Off-site

Construction

Construction activities would result in ground disturbance, excavations, and grading increasing the potential for flooding. Mitigation Measure HYD-1 would be required to prepare a SWPPP in accordance with the NPDES Construction General Permit. The SWPPP would identify BMPs such as include using temporary mulching, seeding, or other stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the Westside Main Canal. With mitigation potential flooding impacts would be reduced to a less than significant level.

Operation

The Project Site is in a minimal flood hazard area. However, addition of new structures and impervious areas could alter drainage patterns and result in flooding on- or off-site. The Westside Main Canal to the north and has elevated banks approximately two feet tall which prevents runoff from leaving the Site. Ultimate outfall for the site occurs when stormwater ponds to a height to overtop the canal bank. The proposed battery storage structures and equipment pads would be elevated at one foot above the ultimate outfall elevation at the top of the bank. In addition, retention ponds would be designed such that stormwater will percolate within 72 hours in accordance with Imperial County requirements and not result in flooding the Westside Main Canal. Mitigation Measure HYD-2 would be implemented that requires that a Final Drainage Plan would be submitted to the County to ensure retention basins would be properly sized and sited. Impacts would be less than significant with mitigation.

Decommissioning

At the end of the Project's operational life, the Project would be decommissioned, and the components removed. Drainage patterns would be substantially unchanged during decommissioning as the retention basins and the buildings would not be removed. Mitigation Measure HYD-1 would be implemented to reduce flooding on-site and off-site and impacts would be less than significant with mitigation.

iii) Exceed Drainage Systems and Additional Sources of Polluted Runoff

As noted previously, although onsite drainage patterns would be altered the Project would not result in the alteration of a stream or river since none exist onsite. In addition, while impervious surfaces would be increased, stormwater flows would be directed to onsite retention basins which would capture and percolate the predicted flows during rain events. Mitigation Measure HYD-2 would require preparation of a Final Drainage Plan to ensure that retention basins would be sized to store Site run-off and not result in spill over into the Westside Main Canal. Similarly, the Project would include post-construction BMPs in compliance

with Division 31, Title 9 of the Imperial County Land Use Ordinance. These would include properly designed materials and storage areas, proof of on-going BMP maintenance, and other items relevant to operations of the site. Project Site. Therefore, potential impacts from drainage capacity and additional runoff would be less than significant.

Mitigation Measures

Implement Mitigation Measures HYD-1 and HYD-2.

Level of Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts on drainage patterns to less-than-significant levels.

3.9 LAND USE AND PLANNING

This section describes the affected environment and regulatory setting for land use and planning related to the Project Site and surrounding area. It also describes the potential land use and planning impacts that would result from implementation of the Project. As noted in the analysis below, direct impacts associated with land use and planning during construction or operation of the Project would be less than significant.

3.9.1 Regulatory Framework

3.9.1.1 Federal

There are no federal land use plans applicable to the Project.

3.9.1.2 State

Assembly Bill 2514

In 2010, the California legislature authorized the CPUC to evaluate and determine energy storage targets, if any, for the State LSEs through AB 2514 (Skinner 2010). In 2013, the CPUC issued D.13-10-040 which set an AB 2514 energy storage procurement target of 1,325 MW by 2020.

The CPUC's energy storage procurement policy was formulated with three primary goals:

- Grid optimization, including peak reduction, contribution to reliability needs, or deferral of transmission and distribution upgrade investments
- Integration of renewable energy
- GHG reductions in support of the State's targets

To date the CPUC has approved procurement of more than 1,533.52 MW of new storage capacity to be built in California. Of this total, 506 MW are operational. The AB 2514 mandate is procured in three distinct grid domain targets, with some flexibility between the grid domain targets of customer sited, distribution-connected, and transmission connected. Cumulatively, the three major IOUs have exceeded the AB 2514 target of 1,325 MW and satisfied nearly all domain-specific requirements (CPUC, 2020).

3.9.1.3 Local

Imperial County General Plan

The General Plan consists of ten elements entitled Land Use, Housing, Circulation and Scenic Highways, Noise, Seismic and Public Safety, Agricultural, Conservation and Open Space, Geothermal/Alternative Energy and Transmission, Water, and Parks & Recreation. The General Plan also includes a Land Use Map designating various land use categories identifying locations and describing the type and anticipated maximum allowable density of ultimate development.

The General Plan was developed following a thorough examination of the County’s physical and cultural resources, socio-economic conditions, and business climate. It provides a balance of land use policies and programs which seek to maintain the "quality of life" in the region. The General Plan is a dynamic document, subject to amendment as needed to respond to changing community and regional goals, physical and public infrastructure resources, and social concerns. The General Plan is aimed at creating a comprehensive guide for development within the County and provides mechanisms to achieve desired community goals

and objectives through a coordinated implementation program. Specific General Plan elements, goals and objectives which are applicable to the Project are listed and evaluated in Table 3.9-1.

Table 3.9-1 Project General Plan Consistency Analysis

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Land Use Element		
Economic Growth		
Goal 2: Diversify employment and economic opportunities in the County while preserving agricultural activity.	Yes	The Project would provide additional employment and economic opportunities by creating a utility-scale energy storage facility that would create both temporary and permanent employment within Imperial County (County). The Economic Impact Analysis (EIA) prepared for the Project (Appendix C) indicated that the economic benefits associated with Project operation would result in approximately $165.13 million benefit to the County over the lifespan of the Project. The Fiscal Impact Analysis (FIA) indicated that Project operation would result in a net revenue surplus to the County of approximately $59.08 million over the lifespan of the Project. Therefore, the Project would be consistent with this goal. Refer to Section 3.2 for further discussion.
Objective 2.1: Achieve a balanced and diversified local economy with a variety of economic and employment opportunities.	Yes	The Project would create both temporary and permanent employment opportunities within the local economy by constructing a utility-scale energy storage facility which is in alignment with the County's goal of diversifying its economy and incorporating renewable and clean energy industries and employment. In addition, the Employment (Jobs) Impact Analysis (JIA) prepared for the Project (Appendix C) would result in the equivalent of 1,549 full-time equivalent jobs during the 10-year construction period and 20 entirely new, full-time equivalent permanent jobs over the lifespan of the Project. Therefore, the Project would be consistent with this objective. Refer to Section 3.2 for further discussion.
Regional Vision		
Goal 3: Achieve balanced economic and residential growth while preserving the unique natural, scenic, and agricultural resources of Imperial County.	Yes	See responses to Goal 2 and Objective 2.1 above.
Objective 3.2: Preserve agriculture and natural resources while promoting diverse economic growth through sound land use planning.	Yes	See responses to Goal 2 and Objective 2.1 above.
Objective 3.15: Support the safe and orderly development of renewable energy in conformance with the goals and objectives of the Renewable Energy and Transmission Element.	Yes	The Project would develop a utility-scale energy storage facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services, and thereby support development of the County's renewable and clean energy technologies portfolio. Therefore, this Project would be consistent with this objective.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Circulation/Scenic Highway Element		
Safe, Convenient, and Efficient Transportation System		
Goal 1: The County will provide and require an integrated transportation system for the safe and efficient movement of people and goods within and through Imperial County with minimum disruption to the environment.	Yes	The Project would include the construction of temporary and permanent access roads designed and built to County roadway standards. The Project would improve the transportation system in the surrounding Project area by providing new access roadways, a clear span bridge over the Westside Main Canal, and creating new roadway connections. Furthermore, Project-related transportation impacts were determined to be less than significant in the Initial Study prepared for the Project, included as Appendix A. Therefore, the Project would be consistent with this goal.
Objective 1.2: Require a traffic analysis for any new development which may have a significant impact on County roads. A traffic analysis may not be necessary in every situation, such as when the size or location of the project will not have a significant impact upon and generate only a small amount of traffic. Also, certain types of projects, due to the trip generation characteristics, may add virtually no traffic during peak periods. These types of projects may be exempt from the traffic analysis requirements. Whether a particular project qualifies for any exemption will be determined by the Department of Public Works Road Commissioner.	Yes	A traffic impact analysis was prepared for the Project. As noted in the Initial Study (Appendix A), the analysis determined that potential traffic impacts related to Project construction and operation were less than significant, and no further analysis would be required. Therefore, the Project would be consistent with this objective.
Objective 1.11: Improve County circulation system roadways in concert with land development to ensure sufficient levels of service.	Yes	The Project would include the construction of access roadways that would assist in improving the County's circulation system roadways that meet County standards. Therefore, the Project would be consistent with this objective.
Objective 1.12: Review new development proposals to ensure that the proposed development provides adequate parking and would not increase traffic on existing roadways and intersection to a level of service (LOS) worse than "C" without providing appropriate mitigations to existing infrastructure. This can include fair share contributions on the part of developers to mitigate traffic impacts caused by such proposed developments.	Yes	The Project would include sufficient parking, per County Municipal Code requirements. In addition, see the response to Goal 1 and Objective 1.2 and the analysis contained in the Initial Study (Appendix A) which determined that the analyzed roadways would operate at LOS B. Therefore, the Project would be consistent with this objective.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Objective 1.17: Assure that road systems are adequate to accommodate emergency situations and evacuation plans.	Yes	The analysis contained in the Initial Study (Appendix A) determined that the Project would provide adequate emergency access and not impede existing evacuation plans. Therefore, the Project would be consistent with this objective.
Agricultural Element		
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.	Yes	The Project Site contains land which is mapped as Farmland of Local Importance. Based on the current land use and zoning designation, the Project is inconsistent with this policy. However, the Project proposes a General Plan Amendment, Zone Change, and a Conditional Use Permit to convert the current Agriculture land use designation to Industry and the zoning from A-3 to M-2. Both the EIA and FIA prepared for the Project indicated that the economic benefits of the Site outweigh the loss of Farmland as the Project Site is landlocked and—due to limited accessibility—has remained unused for over 15 years. In addition, Mitigation Measure (MM) AG-1 is included to reduce impacts from loss of Farmland. Refer to Section 3.2 for further discussion.
Objective 1.1: Maintain existing agricultural land uses outside of urbanizing areas and allow only those land uses in agricultural areas that are compatible with agricultural activities.	Yes	The Project would convert land zoned for agriculture to an industrial use (battery storage). A change in the land use designation from Agriculture to Industry and the zoning from A-3 to M-2 would be required. The Project Site is located at the fringes of agricultural uses with lands to the south and west designated for open space and recreational uses. There are several renewable energy projects to the north of the Project Site. In addition, the EIA and FIA prepared for the Project indicated that the economic benefits of the Project outweigh the loss of Farmland. Refer to Section 3.2 for further discussion. Therefore, the Project would be consistent with this objective.
Objective 1.2: Encourage the continuation of irrigation agriculture on Important Farmland.	Yes	The Project Site would be located on land that is currently zoned for agricultural use. Due to lack of accessibility and irrigation at the Project Site, the land has remained fallow for over 15 years. The Project would not impede the irrigation practices of adjacent agricultural land. Therefore, the Project would be consistent with this objective.
Objective 1.3: Conserve Important Farmland for continued farm-related (nonurban) use and development while ensuring its proper management and use.	Yes	The Project would convert the land from agricultural use to non-agricultural use after the General Plan Amendment and Zone Change. Although Farmland and agricultural uses would not be maintained on the Project Site, implementation of MM AG-1 would reduce this impact to a less-than-significant level. Therefore, the Project would be compatible with this objective. Refer to Section 3.2 for further discussion.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Objective 1.4: Discourage the location of development adjacent to productive agricultural lands.	Yes	As indicated in Goal 1 of the Agricultural Element above, the Project would include a General Plan Amendment and Zone Change for the Project Site. The Project consists of a more passive use which would not impede agricultural practices of adjacent agricultural lands. Therefore, the Project would be compatible with this objective. Refer to Section 3.2 for further discussion
Objective 1.5: Direct development to less valuable farmland (i.e., Unique Farmland and Farmland of Local Importance rather than Prime Farmland or Farmland of Statewide Importance) when conversion of agricultural land is justified.	Yes	The Project Site is currently designated as Farmland of Local Importance which is less valuable as per the EIA and FIA (Appendix C) and does not contain any Prime Farmland or Farmland of Statewide Importance. The Project would change the land use designation from Agriculture to Industry and the zoning from A-3 to M-2. Conversion of this agricultural land was justified in accordance with County requirements, as indicated in the JIA, EIA and FIA prepared for the Project, which are discussed in more detail in Section 3.2 and in Appendix C. Also see responses to Goal 1 of the Agricultural Element above. After decommissioning of the Project, the Project Site would retain its Industry land use designation and M-2 zoning. Therefore, the Project would be consistent with this objective.
Objective 1.8: Allow conversion of agricultural land to non-agricultural uses including renewable energy only where a clear and immediate need can be demonstrated, based on economic benefits, population projections and lack of other available land (including land within incorporated cities) for such nonagricultural uses. Such conversion shall also be allowed only where such uses have been identified for non-agricultural use in a city general plan or the County General Plan and are supported by a study to show a lack of alternative sites.	Yes	The Project Site is proposed on a parcel that is located near existing utility-scale renewable and energy transmission facilities. Although it is currently zoned A-3, the land has remained fallow for over 15 years as a result of lack of accessibility and irrigation. As described in Goal 1 of the Agricultural Element above, the Project proposes a General Plan Amendment and Zone Change to change the land use designation from Agriculture to Industry and the zoning for the Project Site from A-3 to M-2. The new Industry land use designation and M-2 zoning would limit the land uses to energy production/use. This conversion would allow the Project Site to be used for utility-scale energy storage. Also described in Goal 1 of the Agricultural Element above, the JIA, EIA, and FIA (Appendix C) confirm that the Project would represent a more beneficial use than current Site conditions as well as an overall benefit for the County from the conversion of this unused agricultural land to the development of a utility-scale battery storage facility. This is evaluated in more detail in Section 3.2. Impacts related to the loss of agricultural land were considered less than significant with the incorporation of MM AG-1. In addition, Chapter 5 provides an analysis of Project alternatives. Therefore, the Project is consistent with this objective.
Objective 1.9: Preserve major areas of Class II and III soils which are currently nonirrigated but which offer significant potential when water is made available.	Yes	According to the Land Evaluation and Site Assessment, which is evaluated in more detail in Section 3.2 and Appendix C, the Project Site comprises approximately 101.8 acres of Class I-II soils and approximately 61.4 acres of Class III soils. As mentioned above, the land has remained unused for over 15 years due to lack of accessibility and irrigation. According to economic studies prepared for the Project, the benefits of the Project to the County outweigh the loss of agricultural land on this Project Site. Furthermore, impacts related to the loss of agricultural land were considered less than significant with the incorporation of MM AG-1. Therefore, the Project is consistent with this objective.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
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 areas.	Yes	The Project Site currently resides outside of the seven spheres of influence designated by the Imperial County Local Agency Formation Commission. In addition, the Project Site is located at the outer edge of other solar facilities and is not surrounded by active agricultural development. Therefore, the Project is consistent with this goal.
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.	Yes	The Project would convert fallow, agricultural land to industrial use. Phase I of the Project would involve the construction and development of legal permanent vehicular access to the Project Site, and no adjacent agricultural fields would become isolated or more difficult to access. In addition, the Project would not be located in the midst of other agricultural uses. Therefore, the Project is consistent with this objective.
Objective 2.3: Maintain agricultural lands in parcel size configurations that help assure that viable farming units are retained.	Yes	Development of the Project would not alter the parcel size configurations that help assure that viable farming units are retained. Therefore, the Project is consistent with this objective.
Objective 2.4: Discourage the parcelization of large holdings	Yes	The Project does not encourage parcelization of large holdings as the entirety of the Project Site would be used for a single project and would not be divided. Therefore, the Project is consistent with this objective.
Objective 2.6: Discourage the development of new residential or other nonagricultural areas outside of city "spheres of influence" unless designated for non-agricultural use on the County General Plan, or for necessary public facilities.	Yes	The Project Site currently resides outside of the seven spheres of influence designated by the Imperial County Local Agency Formation Commission. The Project proposes a General Plan Amendment from Agriculture to Industry and a Zone Change from A-3 to M-2. The Project Site would no longer be used for agricultural uses. According to economic studies prepared for the Project, the benefits of the Project to the County outweigh the loss of agricultural land on this Project Site. Furthermore, impacts related to the loss of agricultural land were considered less than significant with the incorporation of MM AG-1. Therefore, the Project is consistent with this objective.
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.	Yes	The Project proposes a General Plan Amendment from Agriculture to Industry and a Zone Change from A-3 to M-2. As noted in response to Objective 1.8, there are utility-scale facilities currently located near the Project Site, and development of the Project would not conflict with the agricultural use of adjacent property. Therefore, the Project is consistent with this goal.
Objective 3.5: As a general rule, utilize transitional land uses around urban areas as buffers from agricultural uses. Such buffers may include rural residential uses, industrial uses, recreation areas, roads, canals, and open space areas.	Yes	The Project proposes a General Plan Amendment from Agriculture to Industry and a Zone Change from A-3 to M-2. The Project Site is located at the fringes of agricultural lands and is not located near urban uses. The Site is divided by the Westside Main Canal to the north that provides buffer to distance itself from neighboring uses. Therefore, the Project is consistent with this objective.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Objective 3.8: Renewable energy projects will be allowed within the RE Overlay Zone and mitigation for agricultural impacts have been identified and addressed.	Yes	The Project is located adjacent to, but outside of, the Renewable Energy (RE) Overlay Zone. The Project would develop a utility-scale energy storage facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services, and thereby support development of the County's renewable and clean energy technologies portfolio. Project-related impacts related to the loss of agriculture would be mitigated with implementation of MM AG-1 as described in more detail in Section 3.2. Therefore, the Project is consistent with this objective.
Renewable Energy and Transmission Element		
Goal 1: Support the safe and orderly development of renewable energy while providing for the protection of environmental resources.	Yes	The Biological Resources Report for the Project (Appendix E) indicates that sensitive species may be present on-site. However, implementation of Project mitigation measures would reduce potential impacts on these species to a less-than-significant level. Impacts related to cultural resources were scoped out in the Initial Study prepared for the Project, and it was determined that there would be no impacts to cultural resources either adjacent to and/or within the Project Site, although the presence of unknown burials may be present. Mitigation measure requiring pre-construction surveys is included in Section 3.4 to minimize and/or reduce impacts. Therefore, the Project is consistent with this goal.
Objective 1.2: Lessen impacts of site and design production facilities on agricultural, natural, and cultural resources.	Yes	See response to Goal 1 of the Agricultural Element, above.
Objective 1.4: Analyze potential impacts on agricultural, natural, and cultural resources, as appropriate.	Yes	See response to Goal 1 of the Agricultural Element above. In addition, the Initial Study prepared for the Project (Appendix A) determined that impacts related to cultural resources would either be less than significant or result in no impacts, and no further analysis was required. Therefore, the Project is consistent with this objective.
Goal 2: Encourage development of electrical transmission lines along routes which minimize potential environmental effects.	Yes	The Campo Verde-Imperial Valley 230 kV radial transmission line easement, which lies inside and along the western property line and runs north/south, would be utilized to connect to the Project Site. This connection's proximity to the Project Site would assist in minimizing the potential environmental effects by reducing the construction footprint and using existing facilities. Appropriate mitigation measures would be implemented to reduce potential impacts to a less-than-significant level. Therefore, the Project is consistent with this goal.
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.	Yes	See response to Goal 2 of the Renewable Energy and Transmission Element above.

General Plan Goals and Objectives	Consistent with General Plan	Analysis
Goal 3: Support development of renewable energy resources that will contribute to and enhance the economic vitality of Imperial County.	Yes	See response to Goal 2 of the Renewable Energy and Transmission Element and Objective 2.1 of the Land Use Element (Economic Growth) above.
Objective 3.3: Encourage the development of services and industries associated with renewable energy facilities.	Yes	See response to Objective 3.15 of the Land Use Element (Regional Vision) above.
Objective 3.5: Encourage employment of County residents by the renewable energy industries wherever and whenever possible.	Yes	See response to Goal 2 of the Land Use Element (Economic Growth) above.
Objective 3.7: Evaluate environmental justice issues associated with job creation and displacement when considering the approval of renewable energy projects.	Yes	See response to Goal 2 of the Land Use Element (Economic Growth) above.
Goal 5: Encourage development of innovative renewable energy technologies that will diversify Imperial County's energy portfolio.	Yes	The Project would construct a utility-scale energy storage facility that would support development of the County's renewable and clean energy technologies portfolio by providing important storage capacity. Therefore, the Project is consistent with this goal.
Objective 5.2: Encourage development of utility-scale distributed generation projects in the County.	Yes	See response to Goal 5 of the Renewable Energy and Transmission Element, above.
Noise Element		
Goal 1: Provide an acceptable noise environment for existing and future residents in Imperial County.	Yes	The Initial Study prepared for the Project (Appendix A) determined that impacts related to noise would either be less than significant or result in no impacts, and no further analysis was required. As such, an acceptable noise environment would be maintained for County residents. Therefore, the Project is consistent with this goal.
Objective 1.3: Control noise levels at the source where feasible.	Yes	See response to Goal 1 of the Noise Element, above.
Goal 2: Review proposed projects for noise impacts and require design which will provide acceptable indoor and outdoor noise environments.	Yes	See response to Goal 1 of the Noise Element, above.
Objective 2.3: Work with project proponents to utilize site planning, architectural design, construction, and noise barriers to reduce noise impacts as projects are proposed.	Yes	See response to Goal 1 of the Noise Element, above.

3.9.2 Environmental Setting

3.9.2.1 Regional

The Project Site is in the unincorporated Mount Signal area of the County, approximately eight miles southwest of the City of El Centro and approximately 5 miles north of the U.S.-Mexico border as shown in Figure 1.2-1: Regional Location. The area is generally characterized by agricultural and recreation/open space land uses, as well as large-scale renewable energy projects.

Surrounding Area

As noted above, the dominant uses within the surrounding areas are primarily agricultural and recreation/open space, as well as large-scale renewable energy projects (see Figure 2.3-2: Surrounding Land Uses). The Westside Main Canal forms the de facto border between the two uses. The surrounding parcels to the north and east have a land use designation of Agriculture, with a corresponding zoning of A-3, according to the General Plan. Areas to the west and southwest are lands designated as open space/recreation areas. Lands southwest of the Project Site are BLM lands and are not subject to County zoning designations (Imperial County 2020).

Project Site

The Project Site currently consists of vacant agricultural land, with an Agriculture land use designation and corresponding A-3 zoning. The Project Site has not been used for farming nor has it been irrigated for at least 15 years. In addition, as described in Section 2.0, Project Description, there are apparently abandoned pumping stations and a concrete-lined ditch on the Project Site. Within the Project Site, all infrastructure associated with the previous agriculture operations south of the Westside Main Canal is deteriorated and non-functional, and any current activities on the Project Site are minimal and largely limited to the land north of the Westside Main Canal.

3.9.3 Environmental Impacts

3.9.3.1 Thresholds of Significance

The impact analysis provided below is based on the following threshold, as listed in Appendix G of the CEQA Guidelines. The Project would result in a significant impact to land use and planning if it would result in any of the following:

a) 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?

3.9.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (see Appendix A) since they were determined to be less than significant or no impact. They are briefly described in Chapter 7:

- Would the project physically divide an established community?

3.9.3.3 Methodology

Potential significant impacts associated with the Proposed Project were based upon a review and assessment of applicable land use and zoning documents of this EIR for a list of required permits, including the General Plan and Municipal Code. Permits and/or planning entitlements that may be pursued are noted in the Project Description. The Project Site has a current land use designation of Agriculture and a corresponding zoning of A-3. According to the County Municipal Code, Section 90509.01, Permitted Uses in the A-3 Zone, the Project conflicts with the allowable uses in the A-3 zone. Therefore, the Project will seek a General Plan Amendment and Zone Change to change the land use designation to Industry and the zoning for the Project Site to M-2. In addition, a CUP is being proposed specifically limited to Energy Production/Use.

3.9.3.4 Project Impacts and Mitigation Measures

a) 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?

Construction

The Project Site currently has a land use designation of Agriculture with a corresponding zoning of A-3. The Project is proposing a General Plan Amendment and Zone Change to change the land use designation for the Project Site to Industry with a corresponding zone of M-2. The Project would also need to adhere to the conditions of approval of the CUP, which would restrict the industrial use zoning to Energy Production/Use only in order to allow a utility-scale energy storage complex use in the M-2 zone. Construction would involve development of the Project Site in 3 to 5 phases over a 10-year period and would include construction and installation of BESS components, O&M facilities, utilities infrastructure, private access roads and the new clear span bridge over the Westside Main Canal. Construction of Project components during this time would be conducted in accordance with all applicable regulations and requirements and would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, this impact would be less than significant, and no mitigation measures would be required.

Operation

Project operation would be ongoing throughout the lifespan of the CUP, which provides a maximum term of 40 years. In order for Project operation to commence, a number of permits need to be obtained, most notably including the General Plan Amendment and Zone Change, as discussed previously and listed in Section 2.0, Project Description. As approval of the General Plan Amendment and Zone Change is a fundamental requirement of the Project, the approval of this discretionary action would bring all nonconforming or inconsistent aspects of the Project into conformance and consistency will all applicable General Plan goals and objectives, County requirements, as well as the requirements of other relevant agencies. Table 3.9-1 provides a consistency analysis of the Project with the General Plan elements and associated goals and objectives. As noted therein, operation of the Project would be consistent with the goals and objectives of the General Plan after approval of the General Plan Amendment and Zone Change. Therefore, based upon the analysis within this section, operation of the Project would result in less than significant impacts, since it would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No mitigation measures are required.

Decommissioning

At the end of the 40-year term of the CUP, decommissioning activities would be undertaken and would apply to those portions of the Project that involve operational components including, but not limited to, the electrical switching station, substation, battery modules, inverters, transformers, and PV modules. All operational components would be disassembled and removed from the Project Site. Once decommissioning activities are completed, the Project Site would retain its M-2 zoning and Industry land use designation. Decommissioning of the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, this impact would be less than significant, and no mitigation measures are required.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.

3.10 TRIBAL CULTURAL RESOURCES

This section addresses the potential for the existence of tribal cultural resources (TCRs) on the Project Site and in the Project area, and the potential for Project impacts on those resources. This discussion is based in part on the results of County outreach to tribes as required under Assembly Bill (AB) 52. Outreach correspondence documentation is provided as Appendix J.

3.10.1 Regulatory Framework

3.10.1.1 Federal

No federal regulations pertaining to TCRs apply to the proposed Project.

3.10.1.2 State

Senate Bill 18

Under Senate Bill (SB) 18, the County, as the CEQA Lead Agency, is required to consult with appropriate tribes that have ancestral connections region prior to the adoption of any amendment to a general or specific plan for the purpose of preserving or mitigating potential impacts to cultural places within the local government's jurisdiction. The Lead Agency is required to contact the Native American Heritage Commission (NAHC) for a list of tribes, groups, or individuals who are recognized as having a cultural connection to the proposed plan amendment area. The Lead Agency must notify the tribes and invite them to consult. Tribes are given a 90 period to respond to the agency's request.

Assembly Bill 52

The legislature added requirements regarding TCRs for CEQA in AB 52 that took effect July 1, 2015. AB 52 requires consultation with California Native American tribes and consideration of TCRs in the CEQA process. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and tribal governments, public agencies, and applicants would have information available early in the proposed Project's planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. To help determine whether a project may have such an effect, the PRC requires a lead agency to notify and consult with any California Native American tribe that requests consultation. The County maintains an AB 52 list with tribes that are traditionally and culturally affiliated with the geographic area of the Project.

The purpose of the consultation is to determine if TCRs are present or may be impacted by a proposed project. TCRs are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be TCRs if they meet these criteria.

Executive Order N-54-20

Due to the State of Emergency declaration by Governor Gavin Newsom resulting from the threat caused by COVID-19, Executive Order N-54-20 was issued effective April 22, 2020. Time extensions were provided to public agencies and applicants under CEQA and the time in which tribes are required to respond to requests for consultation under AB 52. Order 9 reads as follows: "The timeframes set forth in Public Resources Code sections 21080.3.1 and 21082.3, within which a California Native American tribe must request consultation and the lead agency must begin the consultation process relating to an Environmental Impact Report, Negative Declaration, or Mitigated Negative Declaration under the California Environmental Quality Act, are suspended for 60 days."

3.10.1.3 Local

Imperial County General Plan Conservation and Open Space Element

The County Conservation and Open Space Element includes goals and objectives related to the preservation of cultural resources. Objective 3.3 states the following: "Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burial sites."

3.10.2 Environmental Setting

3.10.2.1 Summary of County Outreach Efforts

Mr. David Black of the County Planning and Development Services (ICPDS) requested a list of tribes, groups, and individuals from the NAHC for the purposes of conducting tribal consultation for the Project, under both SB 18 and AB 52. The NAHC responded via letter, dated March 4, 2020, from Mr. Steven Quinn, Cultural Resources Analyst at the NAHC, with a list of tribes for the purposes of consultation known to have traditional lands or cultural places located within the boundaries of Imperial County. On March 24, 2020, Mr. Black sent certified letters to individual contacts at the specified tribes inviting them to consult for both SB 18 and AB 52.

The following tribal entities and individuals were sent invitations to consult on the Project:

- Barona Group of the Capitan Grande, Attn: Edwin Romero
- Campo Band of Diegueno Mission Indians, Attn: Ralph Goff
- Eqiiaapaayp Band of Kumeyaay Indians, Attn: Michael Garcia
- Ewiiaapaayp Band of Kumeyaay Indians, Attn. Robert Pinto
- Iipay Nation of Santa Ysabel, Attn: Virgil Perez
- Inaja-Cosmit Band of Indians, Attn: Rebecca Osuna
- Jamul Indian Village, Attn: Erica Pinto
- Jamul Indian Village, Attn: Lisa Cumper
- Kwaaymii Laguna Band of Mission Indians, Attn: Carmen Lucas
- La Posta Band of Diegueno Mission Indians, Attn: Javaughn Miller
- La Posta Band of Diegueno Mission Indians, Attn: Gwendolyn Parada
- Manzanita Band of Kumeyaay Nation, Attn: Angela Elliott Santos
- Mission Grande Band of Diegueno Mission Indians, Attn: Michael Linton
- Quechan Tribe of the Fort Yuma Reservation, Attn: Jill McCormick
- San Pasqual Band of Diegueno Mission Indians, Attn: Allen Lawson
- Sycuan Band of Kumeyaay Nation, Attn: Cody Martinez
- Viejas Band of Kumeyaay Indians, Attn: John Christman

On March 27, 2020, the County sent two additional invitations to consult to:

- Quechan Indian Tribe, Attn: Jordan D. Joaquin
- Quechan Indian Tribe Attn: Jill McCormick

On April 8, 2020, a letter response to the County's invitation to consult was received from the San Pasqual Band of Mission Indians Tribal Historic Preservation Office. Ms. Angelina Gutierrez, Monitor Supervisor for the San Pasqual Band of Mission Indians responded on behalf of David L. Toler, Tribal Historic Preservation Officer. Ms. Gutierrez stated it was determined that the Project as described was not within the boundaries of the recognized San Pasqual Indian Reservation. The Project was, however, within the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). Ms. Gutierrez stated that the San Pasqual Band of Mission Indians would defer to the wishes of Campo, a tribe in closer proximity to the Project; however, "[i]f Campo Does not Respond in a timely manner, we would like (our) right to Reserve comment." The County did not receive any other responses from tribes invited to consult.

TCRs were not identified within the Project footprint following review of the Sacred Lands Files at the NAHC or following invitations to consult with tribes identified by the NAHC as having ancestral ties to the entire County. The Project was identified as within a TUA of the San Pasqual Band of Mission Indians who have requested further consultation if the Campo Band of Diegueno Mission Indians does not respond.

As a result of the extension for consultation requests provided by Executive Order N-54-20, the deadline for tribes to request consultation was extended to June 22, 2020, which is 60 days after the Executive Order was signed. No requests for consultation were made by the Campo Band of Diegueno Mission Indians; therefore, the County sent correspondence to the San Pasqual Band of Mission Indians, on July 8, 2020, to inform David L. Toler that the Campo Band of Diegueno Mission Indians has not responded and invited them to comment. As of the date of publication of the EIR, no further correspondence or requests for consultation under AB 52 were received by the County.

3.10.3 Environmental Impacts

3.10.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the following CEQA Guidelines. The Project would result in a significant impact to TCRs if it would result in any of the following:

a) 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:

   i. 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), or

   ii. 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.

3.10.3.2 Issues Scoped Out as Part of the Initial Study

No issues related to TCRs were scoped out in the Initial Study.

3.10.3.3 Methodology

Under CEQA, the evaluation of impacts to TCRs consists of two-parts: (1) identification of TCRs within a project site or immediate vicinity through AB 52 consultation; and (2) a determination of whether the project may result in a "substantial adverse change" in the significance of the identified resources. The impact analysis in this section is based on the results of archival research, the cultural resources survey performed on the Project Site, and the results of AB 52 and SB 18 consultation undertaken between the County and tribes. Compiled correspondence related to tribal outreach is included as Appendix J.

3.10.3.4 Project Impacts and Mitigation Measures

a) 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)?

There were no listed TCR resources identified or determined eligible for listing in the CRHR or local register as indicated by the documentation provided by the NAHC received August 27, 2018, or through AB 52 consultation efforts. Therefore, construction and operation of the proposed Project would have no impact to historical resource as defined in PRC Section 5020.1(k).

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

b) 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 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?

There were no listed TCRs identified by the NAHC received by RECON August 27, 2018, or through AB 52 consultation efforts; however, the San Pasqual Band of Mission Indians requested continued consultation with Imperial County, if the Campo Band of Diegueno Mission Indians did not respond. The Campo Band of Diegueno Mission Indians have not requested consultation, and correspondence between the County and the San Pasqual Band of Mission Indians is ongoing. MM CULT-1 requires a process to be implemented if unexpected archaeological resources or human remains are encountered and in the event that those remains are determined to be Native American. MM CULT-2 addresses the request by the San

Pasqual Band of Mission Indians to continue consultation. With implementation of MM CULT-1 and MM CULT-2, impacts to TCRs will be reduced to a less-than-significant level.

Mitigation Measures

MM CULT–1 Workers Environmental Awareness Program

A qualified archaeologist shall be retained to prepare a cultural resource focused Workers Environmental Awareness Program (WEAP) training that shall be given to all ground disturbing construction personnel to minimize harm to undiscovered archaeological resources or potential tribal resources that may be discovered during construction. All Site workers shall be required to complete WEAP Training with a focus on cultural resources, including education on the consequences of unauthorized collection of artifacts and that reviews discovery protocol. WEAP training shall also explain the protocol for notification, and requirements to retain a qualified archaeologist to evaluate any unexpected finds, as well as protocols regarding notification of tribal representatives.

MM CULT-2 Continued Consultation with the San Pasqual Band of Mission Indians

If no other responses to Imperial County's invitation to consult on the Project are received, prior to construction, the County shall continue consultation with the San Pasqual Band of Mission Indians (San Pasqual). If the County, as the lead agency, determines through continued consultation that there is substantial evidence the Project may adversely impact a yet unidentified Tribal Cultural Resource that meets criteria established in Public Resources Code Section 5024.1, the County shall determine if measures are needed to minimize potential impacts to TCRs including:

- Requirements for Native American Monitoring of Project Ground Disturbing Activities
- Development of an Unexpected Discovery Plan for Archaeological Resources
- Development of a Treatment Plan for Artifacts Considered to be Tribal Cultural Resources

If the County, through continued consultation efforts, determines there is not substantial evidence to support the existence of potential TCRs at the Project Site, no additional measures shall be required.

Level of Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts on tribal cultural resources to less-than-significant levels.

3.11 UTILITIES AND SERVICE SYSTEMS

This section describes the regulatory framework and existing conditions related to utilities and service systems, evaluates the potential impacts to water, sanitary sewers, storm drainage, solid waste facilities, and energy systems as a result of implementation of the Project, and details mitigation measures needed to reduce significant impacts, as necessary. The information in this section is also based on the Water Supply Assessment, prepared by Dubose Design Group (January 2021), and included as Appendix N.

3.11.1 Regulatory Setting

3.11.1.1 State

California Senate Bill 610

With the introduction of SB 610, on October 9, 2001, any project under CEQA shall provide a Water Supply Assessment (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 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 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.

Under SB 610, water supply assessments must be furnished to local governments for inclusion in environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. Due to increased population, land use changes and water demands, this water bill seeks to improve the

link between information on water availability and certain land use decisions made by cities and counties. As per California Department of Water Resources policy, “Even though a water supplier may not be a ‘public water system’ or become a ‘public water system’ as a result of serving the Project, it will still be involved, in a consultation role, in the preparation of the assessment.” SB 610 takes a significant step toward managing the demand of California’s water supply as it provides regulations and incentives to preserve and protect future water needs. The intent of this bill is to coordinate local water supply and land use decisions to help provide California’s cities, farms, rural communities, and industrial developments with adequate water supplies.

California Water Code

Water Code Sections 10656 and 10657 restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resources. In addition, Water Code Section 10910 describes the WSA that must be undertaken for projects referred under PRC Section 21151.9, including an analysis of groundwater supplies. Water agencies are given 90 days from the start of consultation in which to provide a WSA to the CEQA lead agency. Water Code Section 10910 also specifies the circumstances under which a project for which a WSA was once prepared would be required to obtain another assessment. Water Code Section 10631 directs that contents of the urban water management plans include further information on future water supply project and programs and groundwater supplies.

California Urban Water Management Planning Act – Assembly Bill 797

The Urban Water Management Planning Act was established by AB 797, on September 21, 1983. Passage of this law was a recognition by state legislators that water is a limited resource and a declaration that efficient water use, and conservation would be actively pursued throughout the state. The law requires water suppliers in California, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet per year (AFY) of water, to prepare and adopt a specific plan every five years, which defines their current and future water use, sources of supply and its reliability, and existing conservation measures.

California Public Utilities Commission

California Public Utilities Commission (CPUC) has discretionary approval authority over the planning, design, economic, and environmental considerations for new facilities proposed by the three investor-owned utilities, Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Edison, referred to in the Public Utilities Code as electrical corporations. PUC General Order 131(d)(Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power Distribution Line Facilities, and Substations Located in California) requires the PUC to conduct CEQA review for transmission line applications. Delineated in General Order 131(d), a new transmission line proposal could fall under the jurisdiction of one of two permits: (1) the Certificate of Public Convenience and the Necessity or (2) a Permit to Construct. The Certification of Public Convenience and the Necessity process applies to transmission line upgrades and substation modification (50 kV to 200kV).

3.11.1.2 Local

County of Imperial General Plan

The County of Imperial General Plan contains goals, objectives, policies, and programs created to ensure water and energy resources are preserved and protected.

Water Element

The following goals and objectives from the County of Imperial Water Element are applicable to the Project.

Goal 1: The County will secure the provision of safe and healthful sources and supplies of domestic water adequate to assure the implementation of the County General Plan and the long-term continued availability of this essential resource.

> **Objective 1.2:** Cooperation between the Cities and County for the need to maintain, upgrade, and expand domestic water and sewage treatment facilities of the communities within the County, the need for the implementation of appropriate development fees, and the raising of service fees to off-set limited public financial resources.
>
> **Objective 1.3:** The efficient regulation of land uses that economizes on water consumption, enhances equivalent unit demand for domestic water resources, and that makes available affordable for continued urban growth and development.

Program: All development proposals brought 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.

Renewable Energy and Transmission Element

The following goals and objectives from the County of Imperial Renewable Energy and Transmission Element are applicable to the Project.

Goal 1: Support the safe and orderly development of renewable energy while providing for the protection of environmental resources.

> **Objective 1.5:** Require appropriate mitigation and monitoring for environmental issues associated with developing renewable energy facilities.
>
> **Objective 1.6:** Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.
>
> **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.

Goal 2: Encourage development of electrical transmission lines along routes which minimize potential environmental effects.

> **Objective 2.2:** Where applicable and cost-effective, design transmission lines to minimize impacts on agricultural, natural and cultural resources, urban areas, military operations areas, and recreational activities.

Goal 5: Encourage development of innovative renewable energy technologies that will diversify Imperial County's energy portfolio.

> **Objective 5.2:** Encourage the development of utility-scale distributed generation projects in the County.

Imperial Region Integrated Regional Water Management Plan

The purpose of the Imperial Region Integrated Regional Water Management Plan (Imperial IRWMP) is to define a portfolio of cost-effective water management strategies that support economic development and provide a reliable water supply for new municipal, commercial, and industrial demands without impacting historical municipal, commercial, and industrial, and agricultural uses of water or impacting existing agreements or contracts. The IRWMP is to guide action on resource management strategies and projects to be implemented by participating agencies and stakeholder groups in order to meet the Region's water management goals and objectives.

Imperial Irrigation District Interim Water Supply Policy for Non-Agricultural Projects

The Interim Water Supply Policy (IWSP) was adopted by the IID Board on September 29, 2009. The IWSP identifies and recommends potential programs and projects to develop new water supplies and new storage, enhance the reliability of existing supplies, and provide more flexibility for IID water department operations, all in order to maintain service levels within the District's water service area. The IWSP designates up to 25,000 AFY of IID's water from the Colorado River water supply for new non-agricultural projects, provides a mechanism and process to develop a water supply agreement for any appropriately permitted project, and establishes a framework and set of fees to ensure the supplies used to meet new demands (Imperial Irrigation District 2009).

3.11.2 Environmental Setting

3.11.2.1 Water

The Imperial Valley is located within the south-central portion of Imperial County. The Imperial Valley is bounded by the Salton Sea on the north, Mexico on the south, the Coyote Mountains and the Yuha Desert to the southwest, and San Diego County on the northeast. The Imperial Valley is characterized as a subtropical desert climate, averaging 3 inches of rainfall per year (SWRCB 2019). This area is distinguished by the heavy agriculturally used land. The agricultural use of the area is the highest water consumption use of the County. The Project Site is located within the Salton Sea Transboundary Watershed within the Colorado River Basin Region. The Colorado River Basin Region covers approximately 20,000 square miles in the southeastern portion of California (Basin Plan).

The Colorado River is the main surface water supply to the Imperial Valley for irrigation, industrial, and domestic purposes. Imperial Irrigation District (IID) is entitled to 3.1 million AFY of untreated water from the Colorado River (IID 2020). IID imports water from the Colorado River to the Imperial Valley through the 80-mile-long All-American Canal. The All-American Canal distributes water via the three main canals, which are East Highline, Central Main, and Westside Main, to the seven unincorporated cities within the Imperial Valley, which are Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland.

3.11.2.2 Wastewater

IID serves as the main untreated water provider for the Imperial Valley. Untreated water is provided to the seven municipal cities and two districts, which is then treated and then distributed throughout the area (IID 2020). The Project Site is located approximately 5 miles south of the nearest wastewater treatment facility, Seeley County Water District. However, this wastewater treatment facility would not provide wastewater treatment services for the Project.

3.11.2.3 Stormwater

IID operates and maintains an extensive drainage system as part of its operating system. Approximately 160 acres of drainage outlet systems have been established to collect excess surface flow from agricultural fields, subsurface tile discharges, and operational discharge from nearby canals (IID 2020). Under existing conditions, the western portion of the Site slopes from the southeast to the northwest while the eastern portion of the Site slopes from the southwest to the northeast. The Site currently has a berm along the western and southern boundaries which divert all offsite flows around the Site. Existing stormwater drainage at the Project Site is natural overland flow and infiltration into on-site soils. No man-made stormwater drainage facilities occur on the Project Site.

3.11.2.4 Electrical Energy

The Project Site is undeveloped, and the current energy demand is negligible. The IID supplies electricity to the unincorporated areas of Imperial County and would provide service to the Site. IID's IV Substation is located approximately one-third mile south of the Project Site's southern property line. IID maintains a number of distribution and substation facilities throughout the County and provides electric power to more than 150,000 customers in the Imperial Valley. IID controls more than 1,100 MW of capacity that is derived from various resources including its own generation and long- and short-term power purchased (IID 2020). In a region with abundant renewable resources, IID has emphasized the importance of environmentally friendly operations and procuring renewable energy to provide to its service area. In 2018, approximately 31 percent of energy supplied by the IID was considered Eligible Renewable Energy in the forms of geothermal, hydroelectric, solar, wind, and biomass and biowaste (IID 2018a).

IID's 2018 Integrated Resource Plan (IRP) addresses the current goals to provide reliable, efficient, and affordably priced water and energy service to the communities IID serves (IID 2018a). The IRP also addresses the current challenges to meet load requirements, adapt to new renewable energy portfolio standards and reduce greenhouse gas emissions. The IRP includes goals to implement efficiency programs to reduce load by at least five percent by 2020 (IID 2018a). In addition, the IRP calls for an increase in renewable portfolio to 50 percent by 2030 and to increase building energy efficiency by 50 percent by 2030. The IID had roughly 20.5 percent of load met by renewable resources in 2016 and is anticipated to meet the goal increasing of 50 percent load reduction between 2029 and 2030 (IID 2018a).

3.11.2.5 Telecommunications

The main telecommunications provider for the Imperial Valley is the Imperial Valley Telecommunications Authority (IVTA). The IVTA is a collaborative of all Imperial County school districts, city agencies, county agencies, Imperial Community College, and San Diego State University- IVC (IVTA 2020). Major projects of the IVTA include the connection of participating agencies to a modernized fiber-optic communications network (IVTA 2020). There are no telecommunication facilities at the Project Site currently. The Project would install approximately three-mile-long fiber optic telecommunication cables to connect the proposed substation to the IV Substation, using existing transmissions lines. Based on review of an online database (AntennaSearch.com), there are two existing cell phone towers located in the vicinity of the Project: eNB ID 90416 (located at 497 Brockman Road, Mount Signal, CA, 92231) and eNB ID 89110 located adjacent to the first tower. These towers are owned by SBA Towers II LLC and Ntch-CA West, Inc. However, overall cell reception in the Project vicinity is considered poor.

3.11.3 Environmental Impacts

3.11.3.1 Thresholds of Significance

The impact analysis provided below is based on Appendix G of the CEQA Guidelines. The Project would result in a significant impact to utilities and service systems if it would result in any of the following:

a) ***Result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?***

b) ***Have sufficient water supply available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

3.11.3.2 Issues Scoped Out as Part of the Initial Study

The following thresholds of significance were eliminated from further consideration in the Initial Study (Appendix A), since they were determined to result in less than significant or no impact, as briefly described in Chapter 7.0:

- Would the project result in a determination by the wastewater treatment provider which serves to may serve the project that is has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals
- Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste

3.11.3.3 Methodology

Project-specific data was used to calculate the water consumption during construction and at build-out collectively (“operational”). Potential water supply and service impacts of the Project were based on the Water Supply Assessment. Evaluation of potential stormwater impacts was based on the Preliminary Drainage Study. Evaluation of potential electricity and electrical infrastructure as well as telecommunications (telephone and internet) impacts are based on information provided by the Applicant and correspondence with the IID.

3.11.3.4 Project Impacts and Mitigation Measures

a) ***Would the Project result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?***

Water Treatment

The Project would not require or result in the construction of new water treatment facilities or the expansion of existing water treatment facilities. During construction, the primary use of water would be for dust control. The total water volume used during the 10-year construction period would be up to 210 AF and would be received from the Westside Main Canal through temporary water connections. During the operation and

maintenance phase, approximately 1,000,000 gallons of water for fire suppression would be obtained from the Westside Main Canal and stored in the on-site water storage tanks. The Applicant would obtain approval from the IID for non-agricultural water supply request in accordance with IID's Temporary Land Conversion Fallowing Policy. In addition, a water supply agreement would be obtained from IID, including a formal request for new water delivery and payment for new water delivery. The Project would obtain all required permits in accordance with IID requirements. Potable water would be delivered to the Site from other water purveyors. Water providers would be permitted and licensed businesses and, correspondingly, in compliance with regulatory requirements. Water for decommissioning activities either be obtained from the Westside Main Canal if permitted by IID or trucked in. Therefore, no new or relocated water facilities would be required and impacts resulting from construction, operation, and decommissioning of new water treatment facilities would be less than significant.

Wastewater

The Project Site does not have existing wastewater facilities or connections to wastewater conveyance systems and, therefore, would not require the relocation of existing wastewater facilities. Portable restrooms would be used for the duration of Project construction and would be removed upon completion of construction. During Project operation, wastewater would be held in a septic leach field and removed routinely. The Project would install an on-site septic leach field, and no connection to the region's wastewater treatment systems would be required. As discussed in Section 3.5, Geology and Soils, the OWTS would be permitted through the County Public Health Department and would be installed and maintained in compliance with all applicable regulations to ensure containment and protection of groundwater quality including the Westside Main Canal. During decommissioning, if the proposed septic leach field is determined to be abandoned, it would be done in accordance with the County Ordinance 1516. Any future reuse of the septic leach field may be subject to additional permitting requirements that would be determined during the subsequent regulatory review for a future use. Therefore, the Project would not require the relocation or construction of new wastewater facilities that would result in significant environmental impacts.

Stormwater Drainage

During construction and decommissioning, coverage under the State's Construction General Permit would be required since the project would disturb more than one acre. As part of the permit and as noted in Mitigation Measure HYD-1, a project-specific SWPPP would be prepared and implemented. Impacts from the construction of the two stormwater retention basins would be less than significant.

Due to the increase in impervious area, stormwater retention basins would be located at the northeast and northwest corners of the Site at the historic discharge locations during operation of the Project to manage stormwater flows. Additional overland flow would be accommodated within the proposed retention basins designed to percolate within 72 hours. As discussed in Section 3.8, Hydrology and Water Quality, Mitigation Measure HYD-2 would be implemented to prepare a Site-specific drainage study to ensure the Project would not increase stormwater conveyance off-site.

Therefore, impacts regarding installation of stormwater runoff during Project construction, operations, and decommissioning would be less than significant with mitigation.

Electric Power

The Project Site is primarily undeveloped, current energy demand is minimal, and electrical capacity in the Project area is limited. As such, primary electrical power and connection to the grid would be provided through construction of a new 230 kV switching station and new collector substation for interconnection with the existing IID Campo Verde-Imperial Valley radial gen-tie line. This existing gen-tie line connects to the IV Substation approximately one-third mile south of the Project. This location is the point of

interconnection to the CAISO grid. The Applicant has submitted the necessary Interconnection Request Applications to the CAISO and IID. In addition, the Project would include on-site solar generation and emergency backup generators to supply auxiliary power to the facility during rare events in which connection to the electrical grid system would be disrupted.

The energy-related components of the Project, such as the on-site solar generation for auxiliary power, complement IID's goal to reduce industry's carbon footprint and providing reliable, renewable energy to its service area. The Project would comply with the IID's standards and local and state requirements regarding energy generation and efficiency. Therefore, impacts regarding expansion and/or construction and operation of new utility services are considered less than significant.

Telecommunication Facilities

The Project and surrounding area are not currently served by telecommunications facilities aside from two cell phone towers owned by SBA Towers II LLC and Ntch-CA West, Inc. During construction, the Project would install an approximately one-third-mile long fiber optic telecommunications cable route to connect the new proposed substation to the existing IV Substation utilizing existing transmission lines. The fiber optic telecommunications cable would be utilized for SCADA controls to allow for local and remote monitoring.

The Project would meet the Federal Communications Commission applicable standards and requirements; this agency is responsible for regulating communications by radio, television, wire, satellite, and cable across the U.S. In addition, the Project would be required to adhere to the IVTA's Acceptable Use Policy. The intent of the IVTA Acceptable Use Policy is to ensure that all uses are consistent with IVTA's stated purpose, mission, and goals (IVTA 1996, 2020).

Additional wireless communications, such as new and/or relocated cell phone towers, may also be required to support Project construction and operations. The Applicant would be responsible for contacting the existing service providers to request service and/or changes to existing towers and to pay all applicable fees. Telephone and internet services are provided and approved on a project-by-project basis. The Project would comply with applicable regulations and requirements regarding installation or relocation of telecommunications facilities. Therefore, impacts to telecommunications facilities would be less than significant.

Mitigation Measures

Implement Mitigation Measures HYD-1 and HYD-2.

Level of Significance After Mitigation

Implementation of the mitigation measures above would reduce potential impacts on water to less-than-significant levels.

b) Would the Project have sufficient water supply available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The Project Site is located within IID's Imperial Unit and district boundary. Imperial Valley depends on the Colorado River for its water, which IID transports, untreated, to delivery for agricultural, municipal, industrial (including geothermal and solar energy), environmental (managed marsh), recreational (lakes), and other non-agricultural uses, and as such is eligible to receive water service. IID has adopted an Interim Water Supply Policy (IWSP) for Non-Agricultural Projects, from which water supplies can be contracted to serve new developments within IID's water service area. For applications processed under the IWSP, applicants shall be required to pay a processing fee and, after IID board approval of the corresponding agreement,

will be required to pay a reservation fee(s) and annual water supply development fees. Water supplies considered in the WSA for Project construction, and operation include water from the Westside Main Canal and off-site water imported to the Project Site from water providers. The Project's estimated water demand is 210 AF for construction and 227.14 AF for operations over the 40-year term of the CUP, for an amortized total of 14.57 AFY over the 40-year term of the CUP.

Long-term water supply availability projections provided in the IID service area were reviewed and assessed in the WSA. Based on the WSA, water availability for the Project in a normal year is no different from water availability during a single-dry and multiple-dry year scenarios because IID continues to rely solely on its entitlement for Colorado River water. Due to the priority of IID water rights and other agreements, drought conditions affecting Colorado River water supplies cause shortages for other customers before impacting IID.

The IWSP sets aside 25,000 AFY of IID's Colorado River water supply to serve new non-agricultural projects. As of June 2020, a balance of 23,800 AFY remains available under the IWSP for new non-agricultural projects. The Project would present 0.06 percent of the annual unallocated supply set aside for new nonagricultural projects. Therefore, the Project's demand would not affect IID's ability to provide water to other users in IID's water service area.

If there are any changes in the IID's water agreement that would result in less water available for non-agricultural development contractors, the Applicant would work with IID to ensure it can manage the reduction. IID has further indicated that, provided a water supply agreement is approved and executed by IID under the provisions of the IWSP, IID will have sufficient water to support the water of this Project and impacts to water supply during construction and operations are considered less than significant.

The water demand during decommissioning activities is expected to be lower than construction water demand and for a shorter duration as well. Based on the WSA, IID has adequate water availability to serve the Project. The Applicant would either use the water from the Westside Main Canal for decommissioning activities or truck it in, as determined during the agreement with IID. Since the water demand would be temporary and low, impacts for decommissioning activities on water supply would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

4.0 CUMULATIVE IMPACTS

4.1 INTRODUCTION

Section 15130(a) of the CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Cumulatively considerable, as defined in CEQA Guidelines 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." Section 15355 of the CEQA Guidelines defines a cumulative impact as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

According to the CEQA Guidelines:

> Cumulative impacts refer to two or more individual effects that, when considered together, are considerable and that compound or increase other environmental impacts.
>
> a) The individual effects may be changes resulting from a single project or multiple separate projects.
>
> b) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period. (CCR, Title 14, Division 6, Chapter 3, Section 15355)

In addition, as stated in CEQA Guidelines:

> The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable (CCR, Title 14, Division 6, Chapter 3, Section 15064[T][5]).

4.2 CUMULATIVE IMPACT SETTING

Cumulative impact discussions for each environmental issue area are provided within each individual impact section. As established in the CEQA Guidelines, related projects consist of "closely related past, present, and reasonably foreseeable probable future projects that would likely result in similar impacts and are located in the same geographic area" (CCR, Title 14, Division 6, Chapter 3, Section 15355).

The CEQA Guidelines define a cumulative impact as two or more individual impacts that, when considered together, are significant or that compound or increase other significant environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over time (State CEQA Guidelines Section 15355). The incremental impact of a project, although less than significant on its own, may be considerable when viewed in the cumulative context of other closely related past, present, and reasonably foreseeable projects. A considerable contribution is considered significant from the point of view of cumulative impact analysis.

CEQA Guidelines Section 15130 identifies two basic methods for establishing the cumulative environment in which a project is considered: the use of a list of past, present, and probable future projects or the use

of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. The analysis conducted in this EIR utilizes the list approach to generate the most reliable future projections of possible cumulative impacts. Figure 4.2-1 provides the location of each of these projects in relation to the Project Site.

4.3 GEOGRAPHIC SCOPE

The geographic area analyzed for cumulative impacts is dependent on the resource being analyzed. The geographic area associated with the Project's environmental impacts defines the boundaries of the area used for compiling the list of past, present, and reasonably foreseeable projects considered in the cumulative impact analysis. Each section of this EIR considers the specific geographic area that is directly related to the individual topic addressed within that section. For example, the analysis of air quality is evaluated on a regional level, because air quality impacts are regional in nature; whereas, analysis of aesthetic impacts only considers related projects in the vicinity of the Project Site because of the localized nature of aesthetic impacts.

The geographic area that could be affected by implementation of the Project, in combination with other projects, varies depending on the type of environmental resource being considered. Table 4.3-1 provides the geographic area evaluated in the cumulative analysis for each resource area.

Table 4.3-1 Geographic Scope of Cumulative Impact and Method of Evaluation

Resource Topic	Geographic Area
Aesthetics	Immediate Project vicinity
Agricultural and Forestry Resources	Immediate Project vicinity and region
Air Quality	Local (toxic air contaminants) Air Basin (construction-related and mobile sources)
Biological Resources	Immediate Project vicinity
Geology and Soils	Immediate Project vicinity (effects are highly localized)
Greenhouse Gas Emissions	State
Hazards and Hazardous Materials	Project Site only (does not contribute to cumulative impacts)
Hydrology and Water Quality	Immediate Project vicinity and region
Land Use and Planning	Immediate Project vicinity
Tribal Cultural Resources	Project Site only (does not contribute to cumulative impacts)
Utilities and Service Systems	Immediate Project vicinity

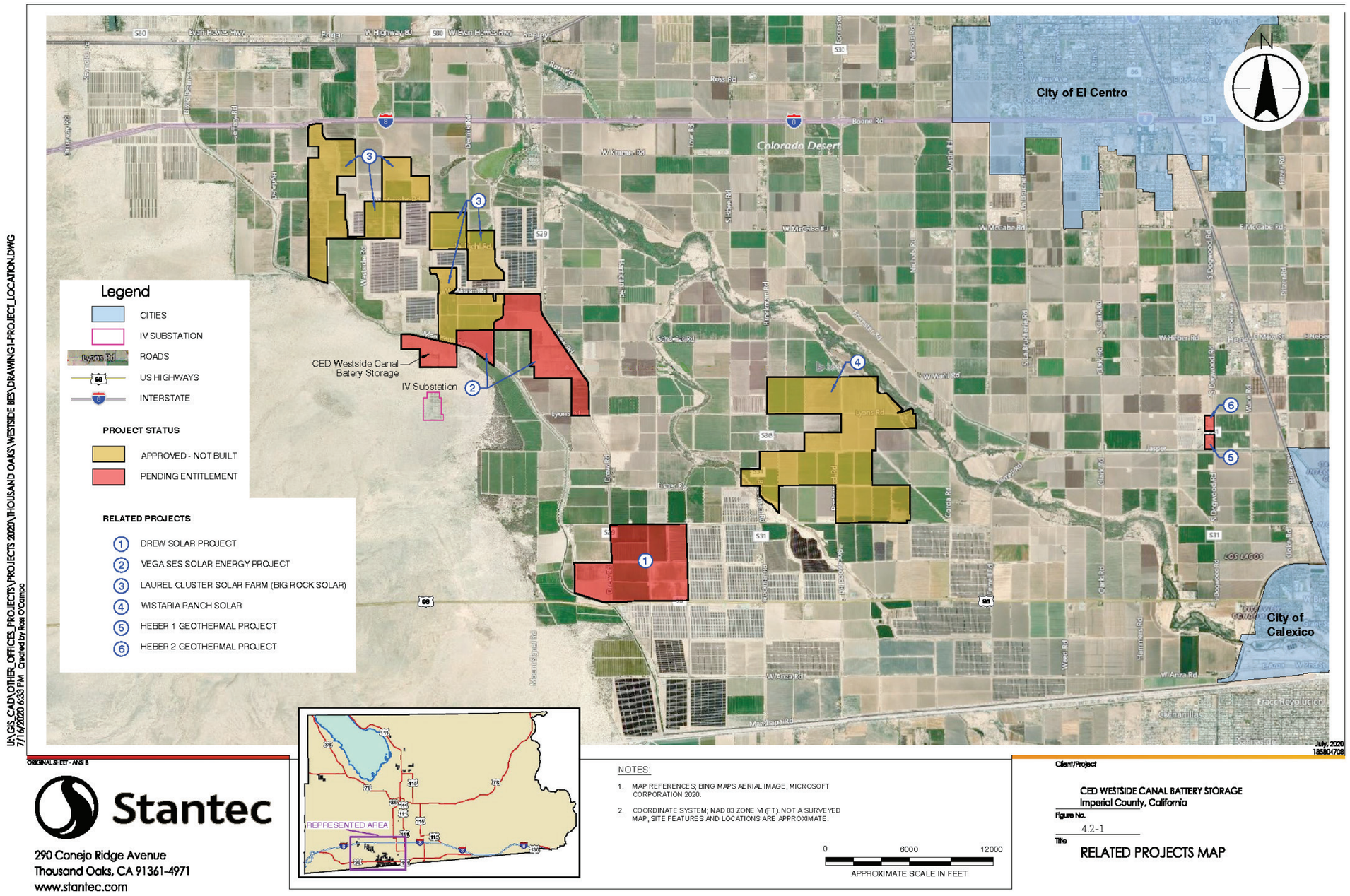


Figure 4.2-1 Related Projects

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4.4 LIST OF RELATED PLANS AND PROJECTS

Table 4.4-1 lists the past, present, and probable future Related Projects considered in the cumulative impact analysis. This list was developed based on communication with the County Development and Planning representatives responsible for approval of projects within its jurisdiction that could be affected by Project construction and operation. The list shown in Table 4.4-1 is not intended to encompass every development project in the region; rather, it identifies the projects of a similar nature with the greatest potential for impacts that would overlap with those of the Project.

Table 4.4-1 Related Projects

Project Number	Name of Project	Use	Project Description	Status
1	Drew Solar Project	Photovoltaic (PV) Solar Energy Facility	• Drew Road and State Route 98, approximately 3.5 miles southeast of Project Site • 100 megawatt (MW) PV solar energy facility • Approximately 762 acres consisting of six parcels • Up to 10-year construction period	Approved 2019; not yet constructed.
2	VEGA SES Solar Energy Project	PV Solar Energy Facility	• Drew and Wixom Roads, immediately adjacent to Project site to the northeast • 100 MW PV solar energy facility with integrated battery storage system • Approximately 574 acres, consisting of five parcels	Approved 2019; not yet constructed.
3	Laurel Cluster Solar Farm (Big Rock Solar)	PV Solar Energy Facility	• Drew Road and Westside Main Canal, immediately adjacent to Project Site to the north and northeast • 325 MW PV solar energy facility • Approximately 1,380 acres, consisting of four parcels	Approved 2019; not yet constructed
4	Wistaria Ranch Solar	PV Solar Energy Facility	• Wahl Road and Rockwood Road, approximately 4 miles east and southeast of Project Site • 250 MW solar energy facility • Approximately 2,793 acres on five total clusters across 32 parcels; four southern clusters built out and largest cluster not yet constructed	Approved 2014; partially constructed
5	Heber 1 Geothermal Project	Geothermal Energy Facility	• Dogwood and Willoughby Roads, approximately 11 miles east of Project Site • Construction and operation of new geothermal energy converters capable of generating 52 MW • Located on an existing facility, directly south of Heber 2; similar characteristics to Heber 2	Not yet approved
6	Heber 2 Geothermal Project	Geothermal Energy Facility	• Dogwood Willoughby Roads, approximately 11 miles east of Project Site • Construction and operation of new geothermal energy converters capable of generating 33 MW • Approximately 4 acres of disturbance on an existing 40-acre site	Not yet approved

CEQA defines “probable future projects” as those with an active application at the time the NOP was released for a project (in this case, April 13, 2020). The list of projects in Table 4.4-1 was used in the development and analysis of the cumulative settings and impacts for each resource topic. Past and current projects in the Project vicinity were also considered as part of the cumulative setting as they contribute to the existing conditions upon which the Project and each probable future project’s environmental effects are compared.

Unless otherwise specified, significance criteria are the same for cumulative impacts as they are for Project impacts for each environmental topic area. When considered in relation to other reasonably foreseeable projects, cumulative impacts to some resources would be significant and more severe than those caused by the Project alone.

4.5 CUMULATIVE IMPACT ANALYSIS

For purposes of this EIR, the Project would result in a significant cumulative effect if either of the following apply:

- the cumulative effects of Related Projects (past, current, and probable future projects) are not significant, and the incremental impact of implementing the Project is substantial enough when added to the cumulative effects of Related Projects to result in a new cumulatively significant impact
- the cumulative effects of Related Projects are already significant, and implementation of the Project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance

This cumulative impact analysis assumes that all mitigation measures identified in Sections 3.1 through 3.11 to mitigate project impacts are adopted. The analysis herein analyzes whether, after adoption of Project-specific mitigation, the residual impacts of the Project would cause a cumulatively significant impact or would contribute considerably to existing and anticipated (without the Project) cumulatively significant effects. Where the Project would so contribute, additional mitigation is recommended where feasible.

4.5.1 Aesthetics

4.5.1.1 Cumulative Setting

As indicated above, there are six Related Projects in the County, including two that are in the Project vicinity. Portions of Related Project 2, the VEGA SES Solar Energy Project (immediately north of the Project Site, across the Westside Main Canal), and Related Project 3, Laurel Cluster Solar Farm (immediately northeast of the Project Site, across the Westside Main Canal), are within the same viewshed as the Project as they are within closest proximity to the Project. Of the remaining Related Projects, Related Project 1, Drew Solar Project, is the next closest, at approximately 3.5 miles away, followed by Related Project 4 (approximately 4 miles away), Related Project 5 and # 6 (approximately 11 miles away). All four of these projects are too distant to have cumulative aesthetic impacts.

The short-term visual impacts of the Project would be related to general construction activities; however, these views would be available only to a limited number of people that are in relatively close to the Project Site. Longer-term visual impacts of the Project would be related to the presence of the Project itself and its various components, including structures, the clear-span bridge and roadways, as well as the transmission system.

4.5.1.2 Cumulative Impacts and Mitigation Measures

Related Projects 2 and 3 are located to the north and northeast of the Project Site, and these projects would be constructing similar project components over a very large area. They would be constructed in phases over several years and would add onto the less than significant temporary construction and long-term operational visual character and light and glare impacts associated with the Project. Although the visual character of the Project vicinity would gradually change with the continued development of PV solar energy projects in the area, construction of Related Projects 2 and 3 would not significantly impede any views in the area, as those projects would not consist of tall structures, other than power poles and lines, and would be of a similar character as the Project. Additionally, the Related Projects, in conjunction with the Proposed Project, would be in remote areas and would be only visible to a small number of people passing by on local roadways. Development of the Related Projects, in conjunction with the Project, would gradually change the visual character of the Imperial Valley on a more regional basis; however, these projects would be required to comply with the County ordinances to protect visual resources.

Furthermore, many of the Related Projects would be decommissioned at the end of their useful life, thereby returning these areas to their current agricultural or otherwise undeveloped conditions. Similarly, the Project would be decommissioned but would maintain its new M-2 zoning designation. Decommissioning would remove transmission towers and tie lines that would be the most visible Project components, and as such, after the Project's useful life, there would be no long-term contribution to cumulative visual character impacts.

Similar to the Proposed Project, development of the Related Projects would not include significant sources of illumination that would increase the amount of light and glare in the projects' vicinity. They would also be required to comply with Title 24 requirements, as well as applicable County ordinances related to the light and glare. In addition, the Related Projects would be constructed at a significant distance from the Project such that any cumulative lighting impacts in the area would be negligible.

Based on the above, none of the Related Projects would significantly alter the aesthetic or visual character of the Project vicinity, affect the lighting environment, produce glare that would affect views in the area or otherwise contribute to a cumulative significant aesthetic impact. Therefore, the construction and operation of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative aesthetic impacts.

4.5.2 Agricultural and Forestry Resources

4.5.2.1 Cumulative Setting

Related Projects 1, 2, 3 and 4 consist of solar PV projects located on agricultural lands, while Related Projects 5 and 6 are geothermal projects that are not located on agricultural land. Related Projects would be temporarily converting agricultural land for use as renewable energy projects. Solar projects are considered temporary, as their respective CUPs would limit their operational time. In reviewing the respective EIRs for Related Projects 1, 2, 3 and 4, there would be a total temporary conversion of approximately 1,339 acres of Prime Farmland, approximately 3,915.4 acres of Farmland of Statewide Importance, and approximately 209.5 acres of other Farmland, such as Unique Farmland, Farmland of Local Importance or Grazing Land.

4.5.2.2 Cumulative Impacts and Mitigation Measures

The Project does not contain any Prime Farmland or Farmland of Statewide Importance. Therefore, when considered together with the Related Projects, there would not be a cumulative impact to the temporary loss of this most valuable Farmland. In addition, the land on the Project Site has not been used for

agriculture in over 15 years, due to the lack of irrigation and accessibility. Related Projects 1, 2, 3 and 4 would all entail the temporary conversion of agricultural land, each with their respective CUPs to limit operational of these facilities. The Project, as well as Related Projects 1, 2, 3 and 4 would all involve decommissioning of the renewable energy facility components. Related Projects 1, 2, 3 and 4 could revert to an agricultural use and retain its agricultural land use designation and zoning, at the end of those projects' operational life. After decommissioning of the Project, the Site would retain its Industry land use designation and M-2 zoning. Related Projects 1, 2, 3 and 4, as well as the Project (MM AG-1), would require implementation of project specific County mitigation measures to reduce impacts to the loss of Farmland. MM AG-1 would require the Project Applicant to minimize the impacts associated with the permanent loss of valuable Farmland through either provision of an agricultural conservation easement, payment into the County agricultural fee program, or entering into a public benefit agreement. With mitigation incorporated, these projects would have a less than significant impact on agriculture and forestry resources, which would help reduce the impact of conversion of Farmland of Local Importance to a non-agricultural use. Therefore, construction, operation, and decommissioning activities of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative agricultural resources impacts.

4.5.3 Air Quality

4.5.3.1 Cumulative Setting

The geographic extent for cumulative air quality impacts is the Salton Sea Air Basin within the ICAPDC jurisdiction, because this is the air basin in which the generated air pollutants are created, spread, and have most consequences. Therefore, Imperial County is used as the geographic scope for analysis of cumulative air quality impacts. The ICAPDC has created air quality plans to document the strategies and measures needed to reach attainment of ambient air quality standards.

The Project Site is in non-attainment areas for NAAQS and CAAQS for ozone and particulate matter. The majority of regional PM_{10} and $PM_{2.5}$ emissions originate from dust stirred up by wind or by vehicle traffic on unpaved roads (Imperial County APCD 2009). Other PM_{10} and $PM_{2.5}$ emissions originate from grinding operations, combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning, and industrial processes. Ozone is not emitted directly but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. Approximately 88 percent of NO_X and 40 percent of ROG regional emissions originate from on- and off-road vehicles (Imperial County APCD 2010). Other major sources include solvent evaporation and miscellaneous processes such as pesticide application.

4.5.3.2 Cumulative Impacts and Mitigation Measures

The Related 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. Therefore, the potential for a cumulative short-term air quality impact as a result of construction activities is anticipated to be less than significant.

The Project would not result in significant impacts and is consistent with the ICAPCD's air quality plans, and with SCAG's growth projections. As shown in the technical analysis for the Project, all construction-related emissions would be less than the applicable significance thresholds. However, as required by the ICAPCD, mitigation measures MM AIR-1 and MM AIR-2 would be required to help ensure that emissions do not exceed the thresholds. The Project, in conjunction with the construction of other Related Projects could result in a cumulatively considerable increase in the generation of PM10 and NOx; however, like the Project, cumulative projects would be required to comply with all applicable Imperial County APCD standard

measures for fugitive dust and construction equipment. With implementation of mitigation measures, the Project would not result in a cumulatively considerable net increase in criteria pollutants for which the region is in non-attainment of federal or state standards during construction. The Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative air quality impacts.

All Project-related operation-related emissions would be less than the applicable ICAPCD's significance thresholds; therefore, there would not be a cumulatively considerable impact related to Project operation, in conjunction with operation of the Related Projects. Project emissions would be consistent with SCAG's growth projections and the ICAPCD's air quality plans; therefore, the Project is consistent with the cumulative emissions modeling that has been completed for the overall air basin and cumulative impacts would be less than significant.

The Project is anticipated to operate for a total of approximately 30 years from the construction of the final phase, with a maximum of 40 years from the CUP effective date. At the end of the Project's useful operational life, the Applicant may determine that the Project Site should be decommissioned and deconstructed, or it may seek an extension of its CUP. The emissions associated with decommissioning of the Project are not quantitatively estimated, as the extent of activities and emissions factors for equipment and vehicles at the time of decommissioning are unknown. The overall activity would be anticipated to be somewhat less than Project construction, and the emissions from off-road and on-road equipment are expected to be much lower than those for the Project construction. However, without changes in fugitive dust control methods it is likely that fugitive dust emissions would be closer to those estimated for construction. Overall, similar to construction, emissions associated with decommissioning would be less than significant.

Similar to construction, decommissioning of the Project would require compliance with ICAPCD standard measures and mitigation measures AIR-1 and AIR-2. Related Projects would also comply with the ICAPCD's regulations and measures during decommissioning. Therefore, cumulative impacts from decommissioning would be less than significant with implementation of mitigation measures.

4.5.4 Biological Resources

4.5.4.1 Cumulative Setting

The cumulative setting includes all areas containing biological resources within the County region. Development anticipated as part of the cumulative condition is reflected in the land uses shown on the County's General Plan Land Use Map and Figure 4.2-1. Future proposed and planned development would change the intensity of land uses in the County. Future growth under cumulative conditions may result in biological and natural resources impacts, including loss of natural habitats and associated species. Generally, regulatory agencies, such as the CDFW, have instituted regulations to limit impacts to protected species. Potential impacts would be reduced to less than significant levels through mitigation requiring compliance with all applicable regulations protecting biological resources, as well as jurisdictional waters. Related Projects would also be required to avoid impacts special-status species and/or mitigate impacts in accordance with regulatory requirements.

4.5.4.2 Cumulative Impacts and Mitigation Measures

Most Project construction related impacts to sensitive wildlife, sensitive plants, and jurisdictional waters would be permanent and direct. Operational impacts would not result in significant additional impacts. There are no known bird or bat migratory corridors that would be directly impeded by the Project. Large concentrations of migrant species are not known to utilize any specific portion of the Project Site, and construction, O&M and decommissioning activities are not expected to preclude use of the area. Migrating birds would have access to suitable habitat within the adjacent areas. Although species would be disrupted

during certain activities, impacts to migratory corridors from the Project would not be significant. Impacts to sensitive wildlife, sensitive plants, jurisdictional waters, and wildlife corridors, when combined with Related Projects, would not be cumulatively considerable.

However, the Project would result in direct impacts to native vegetation known to support-special status plants and wildlife, including burrowing owl, flat-tailed horned lizard, American badger, and Colorado Desert fringe-toed lizard. Most potential impacts would be permanent and direct in nature. Although, the Project would impact the native habitat, the overall loss of these communities within California, and their suitability to support several special-status species, the loss of this habitat when combined with Related Projects could be considered a cumulatively significant impact.

Implementation of MM BIO-1 through BIO-19 would minimize the Project's contribution to cumulatively considerable impacts during construction, operation, and decommissioning. These measures include worker education describing the sensitive biological resources that occur on the Project Site, implementation of BMPs to minimize and avoid impacts, pre-construction surveys, nesting bird buffer protocols, and conducting biological monitoring during ground-disturbing and other construction-related activities. Implementation of these mitigation measures would reduce the Project's contribution to cumulative impacts. Therefore, with implementation of mitigation measures, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative biological resources impacts.

4.5.5 Geology and Soils

4.5.5.1 Cumulative Setting

The study area for potential cumulative geology and soil impacts consists of the Project site and the surrounding area, which encompasses the Related Projects identified in Table 4.4-1. This study area contains similar geologic conditions that could be affected by cumulative soil impacts (e.g., cumulative geology, seismically and soil-related impacts).

4.5.5.2 Cumulative Impacts and Mitigation Measures

In general, the Project, in combination with the Related Projects, would not contribute to significant cumulative geologic impacts, because geologic/seismic impacts would be generally site specific. The Project and Related Projects would not change the geologic properties of the area. There would continue to be some level of seismic and other geologic risks during operation of the Project and Related Projects because of their locations within a seismically active region of Southern California; however, these risks would not increase or decrease as a result of the construction, operation or decommissioning activities attributed to the Project and Related Projects. Additionally, similarly to the Project, the Related Projects would be subject to preparation of site-specific geotechnical evaluations and applicable seismic standards, safety requirements, and standard design specifications to reduce the potential risk of damage from seismic and other geologic hazards to an acceptable level. Therefore, construction, operation and decommissioning of the Project and Related Projects would not result in cumulatively considerable impacts with respect to geology, seismicity, or soils, resulting in a less than significant cumulatively considerable contribution to geology and soil impacts.

4.5.6 Greenhouse Gas Emissions

4.5.6.1 Cumulative Setting

Section 15064.4 addresses the significance of GHG emissions, directing that a lead agency shall make a "good-faith effort" to "describe, calculate or estimate" GHG emissions in CEQA environmental documents

(CNRA 2018). Section 15064.4 further states that the analysis of GHG impacts should include consideration of (1) the extent to which the project may increase or reduce GHG emissions, (2) whether the project GHG emissions would exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project would comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines focus on the effects of GHG emissions as cumulative impacts and direct that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (CNRA 2009). CEQA Guidelines section 15064.4 states that "the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes."

4.5.6.2 Cumulative Impacts and Mitigation Measures

The CEQA Guidelines establish that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located (CEQA Guidelines section 15064(h)(3)). The Project and Related Projects are required to comply with these requirements and would, therefore, have a less than significant cumulatively considerable impact.

Analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions and additionally, climate change impacts related to GHG emissions do not necessarily occur in the same area as the Project is located. Given that the Project would generate GHG emissions consistent with applicable reduction plans and policies and that GHG emission impacts are cumulative in nature, the Project's incremental contribution to cumulatively significant GHG emissions, in conjunction with the GHG contributions of the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative GHG impacts.

4.5.7 Hazards and Hazardous Materials

4.5.7.1 Cumulative Setting

The geographic scope of the cumulative hazards and hazardous materials analysis is the project area that could cause soil or groundwater contamination or create a risk of upset conditions, which is the Project Site and the immediate vicinity, as adverse effects of hazards and hazardous materials tend to be localized since they tend to be related to on-site existing hazardous conditions and/or hazards caused by the project's construction or operation. Impacts related to the transport, use, or disposal of hazardous materials and hazards to the public or environment because of upset and accident conditions are primarily site-specific.

4.5.7.2 Cumulative Impacts and Mitigation Measures

Cumulative impacts could occur if Related Projects would have the potential to cause an accidental release to the public or environment during transport, use, or disposal of hazardous materials, and any project that would potentially expose sensitive receptors to an accidental release of hazardous materials. Compliance with existing applicable laws would help ensure that impacts related to exposure to hazardous materials would be minimized and/or avoided. The development, operation, and decommissioning of the Project would comply with these requirements resulting in cumulative effects that would be less than significant.

Therefore, the Project's potential impacts to hazards would not combine with impacts from Related Projects, such that a cumulatively significant impact associated with hazards or hazardous materials could occur. In addition, the Related Projects must comply with all applicable regulations similar to the Project, thereby reducing the potential to create a hazard to the public or environment. The Project also intends to commit to contribute its proportionate share to purchase, a Type 1 Fire Engine which shall meet all NFPA standards for structural firefighting for the ICFD. Related Projects are anticipated to contribute their fair share as well as determined by the ICFD. Therefore, construction, operation, and decommissioning of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative hazards and hazardous materials impacts.

4.5.8 Hydrology and Water Quality

4.5.8.1 Cumulative Setting

The geographic scope for cumulative impacts on hydrology and water quality includes the Imperial Hydrologic Unit, Brawly Hydrologic Area, which includes the Related Projects listed above.

4.5.8.2 Cumulative Impacts and Mitigation Measures

Construction and decommissioning of the Project would include compliance with of all required laws, permits, ordinances and plans, and mitigation measure HYD-1 that would reduce incremental effects to hydrology and water quality. Each of the cumulative projects noted in Table 4.4-1 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 help ensure short-term water quality impacts are not cumulatively considerable.

The Project would result in an increase of impervious surfaces within the watershed. However, the Project is not expected to result in long-term operations-related impacts related to water quality as impacts due to run off and water quality would be mitigated by implementation of mitigation measure HYD-2. The areas surrounding the Project area are agricultural or open space, and any future development there or at the sites of the Related Projects would include compliance with of all required laws, permits, ordinances and plans to meet runoff minimization requirements. Therefore, construction, operation, and decommissioning of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to hydrology and water quality impacts.

4.5.9 Land Use and Planning

4.5.9.1 Cumulative Setting

The Project area is comprised of vacant land and agricultural land uses, as well as utility-scale solar PV facilities. The Project represents a continuation of planned renewable and clean energy development within this existing environment and includes the construction of a utility-scale battery storage facility adjacent to an existing solar farm, an existing transmission facility, and a buffer area (e.g., IID Canal). The Related Projects consist of more renewable energy projects, reflective of the encouraged use of renewable energy projects by the County. Typically, cumulative impacts associated with land use can include an evaluation of a broad geographic (e.g., City or County jurisdiction) area to better understand the past, current, and future development patterns of the area and their relation to the Project.

4.5.9.2 Cumulative Impacts and Mitigation Measures

The Proposed Project in conjunction with cumulative development in the area could contribute to an increase in development in the Project vicinity and result in the incremental loss of these agricultural lands in the County. However, potential land use impacts require evaluation on a case-by-case basis to accurately evaluate the impacts of a specific development on its immediate environment. The Project would be consistent with the goals and policies of the Imperial County General Plan, upon approval of the General Plan Amendment and Zone Change and Conditional Use Permit. The Project determined no land use or cumulative related land use impacts would result and therefore, no mitigation measures would be required. Similarly, all Related Projects have and/ or would be required to undergo separate environmental review on a case-by-case basis in accordance with the requirements of the CEQA Guidelines. Each related project would also require demonstrating consistency with all applicable planning documents governing the project sites, including the Imperial County General Plan, Zoning Ordinance, and Municipal Code.

The Project and Related Projects 1, 2, 3 and 4 would undergo decommissioning at the end of the projects' useful life or expiration of their respective CUPs. The Project would retain its proposed zoning designation of M-2 pursuant to decommissioning, while the Related Projects would revert to agricultural uses. The potential for the cumulative effects caused by the decommissioning of multiple renewable utility-scale solar power and/or energy storage facilities in the County could result in impacts on surrounding land uses. To address this, decommissioning of the Project and Related Projects would require an approved Decommissioning Plan. The requirement of both an approved Decommissioning Plan, as well as consistency with the County General Plan, Zoning Ordinance and Municipal code would reduce potential cumulative land use impacts associated with construction, operation, and decommissioning to less than significant levels. Therefore, construction, operation, and decommissioning of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative land use and planning impacts.

4.5.10 Tribal Cultural Resources

4.5.10.1 Cumulative Setting

According to CEQA, the importance of TCRs is the value of the resource to California Native American tribes culturally affiliated with a specific project area. Therefore, the issue in a cumulative impact analysis is the loss of TCRs in the vicinity of a project site. For TCRs that are avoided or preserved through dedication within open space, no impacts would occur. However, if avoidance or dedication of open space to preserve TCRs is infeasible, those impacts must be considered in combination with TCRs that would be impacted for other projects included in the Related Projects list.

4.5.10.2 Cumulative Impacts and Mitigation Measures

The Related Projects located in the region would have the potential to result in a cumulative impact associated with the loss of TCRs through development activities that could cause a substantial adverse change in the significance of a tribal resource. Any cumulative projects that involve ground-disturbing activities would have the potential to result in significant impacts to TCRs. All projects, including the Related Projects would be regulated by applicable federal, state, and local regulations to avoid the destruction of TCRs.

Construction, operation, and decommissioning of the Project would include activities limited to the confines of the Project site. As discussed in Section 3.10 of this EIR, the cultural resources study and the County's tribal consultation efforts did not identify TCRs within the Project footprint. The Project is considered unlikely to adversely affect TCRs. Furthermore, the Project is required to implement MM CULT-1, which provides training for construction workers in the event resources are unexpectedly encountered during construction.

The San Pasqual Band of Mission Indians has requested additional consultation; therefore, MM CULT-2, which requires consultation to determine if monitoring or treatment plans for unexpected discoveries shall be required, would be implemented. As there are no known TCRs identified that would be impacted by the Project, and implementation of MM CULT-2 requires continued consultation, the Project's impacts to TCRs were determined to be less than significant. The Related Projects would, like the Project, be required to comply with regulatory requirements governing TCRs, including consultation with California Native American Tribes, as required by AB 52. For these reasons, the Project, when considered together with the Related Projects, would have a less than cumulatively considerable contribution to cumulative impacts on TCRs.

4.5.11 Utilities and Service Systems

4.5.11.1 Cumulative Setting

The cumulative setting with respect to utilities and service systems is the immediate Project vicinity. As indicated above, Related Project 2 and Related Project 3 are located adjacent to the Project Site, to the north and northeast, so they are the most relevant projects to consider for potential cumulative impacts. Related Project 1, Drew Solar Project, is the next closest, at approximately 3.5 miles away, followed by Related Project 4 (approximately 4.3 miles away), Related Project 5 and Related Project 6 (both approximately 10.6 miles away).

Water

As described above, the Colorado River is the main supplier of water to the Imperial Valley for irrigation as well as commercial, industrial, and residential uses. IID is entitled to its share of untreated imported water from the Colorado River, which is conveyed via the All-American Canal. The Related Projects along with the Project would use either IID imported water or provide their own water supply by digging wells or importing water from other sources.

Wastewater

IID serves as the main untreated water provider for Imperial Valley. The Related Projects would either utilize their own on-site wastewater treatment methods or connect to the Seeley County Water District wastewater treatment facility, located 4.7 miles south of the Project Site. However, the Project and some of the Related Projects would provide their own wastewater treatment services by utilizing septic tanks and leach fields or other engineered methods. As such, they would not be connecting to existing wastewater treatment facilities.

Stormwater

IID operates and maintains extensive drainage outlet systems to collect excess surface flows, subsurface tile discharges, and operational discharges from nearby canals. Due to the increase in impervious surfaces associated with PV solar energy projects, new and/or expanded stormwater conveyance systems (e.g., pipes, ditches, and channels), as well as retention basins are required to support the Project and Related Projects. The Project and Related Projects would be required to design their projects in accordance with applicable regulations related to stormwater conveyance.

Electric Power

IID supplies electricity to unincorporated areas of the County, providing electrical power to more than 10,000 customers in the Imperial Valley, as well as maintaining distribution and substation facilities throughout the County. In accordance with IID's stated goals in its 2018 IRP, IID wants to increase its renewable energy

portfolio to 50 percent by 2030 and its mix of renewable energy generating sources account for less than 21 percent of the total load currently. The Project and Related Projects are helping IID to meet its goals to provide reliable, renewable energy to its customers.

Telecommunication Facilities

IVTA is the main telecommunications provider for the Imperial Valley, including for the Project and Related Projects. IVTA seeks to connect participating agencies to a modernized fiber-optic telecommunications network. There are cell phone towers located throughout the County, including two existing cell phone towers in the Project vicinity; however, overall cell reception in the vicinity is considered poor.

4.5.11.2 Cumulative Impacts and Mitigation Measures

Water

The Related Projects, in conjunction with the Project, would be responsible to seek service agreements with IID and/or prepare a project-specific WSA pursuant to SB 610. By doing so, water demand for projects developed within the IID service area would be supported by IWSP forecasted water supplies evaluated for multiple dry-year scenarios. Compliance with applicable codes and regulations related to water supply and water conservation would assist in ensuring that adequate water supplies are available for the Related Projects. In addition, each project would be required to account for its own water supply as part of its approval, demonstrating that sufficient water supplies would be available from existing water resources and entitlements. This is intended to help ensure that water service would meet the projected cumulative demand. Therefore, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on water supply.

Wastewater

The Project would treat its own wastewater on-site by utilizing septic leach fields. The Related Projects would either utilize their own on-site wastewater treatment methods or connect to the Seeley County Water District wastewater treatment facility. If a related project would connect to the Seeley County Water District wastewater treatment facility, if would be required to apply for the appropriate sewer permit prior to connecting to the sewer system, in compliance with all applicable regulations. The Project, when considered together with the Related Projects, would not result in new or expanded wastewater treatment facilities, since each project would be required to comply with all applicable regulations relating to wastewater treatment based on project-specific studies. Therefore, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on wastewater.

Stormwater

The Project, in conjunction with the Related Projects, would be required to manage stormwater and runoff for their respective project sites. The Project proposes to include stormwater retention basins on-site as required, which would be designed in accordance with applicable County guidelines. Similarly, the Related Projects would also be required to comply with applicable regulations related to stormwater conveyance with project-specific design considerations implemented to minimize impacts related to stormwater. In addition, four of the six Related Projects are at least 3.5 miles away from the Project Site, and stormwater flows from these projects would be too far away to be cumulatively considerable. Therefore, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on stormwater.

Electric Power

The Project is anticipated to generate 25 to 400 MW per phase over a 10-year period. The rated capacity of the Project at full buildout is approximately 2,000 MW. The Related Projects would generate an additional minimum of 860 MW of renewably sourced electricity for the Imperial Valley and beyond. The Project, together with the Related Projects, complement IID's goal of reducing industrial carbon footprints and providing reliable, renewable energy complemented by battery storage. Furthermore, each project would comply with all applicable standards and regulations regarding energy generation and efficiency. Therefore, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on electric power.

Telecommunication Facilities

The Project proposes to install an approximately one-third-mile long telecommunication cable using existing gen-tie lines. Should new cell phone towers be required, each respective project would be required to request service from existing service providers. As such, cell phone service in these areas may improve. The Project and Related Projects would be required to comply with applicable regulations and requirements regarding installation and relocation of telecommunications facilities, including Federal Communications Commission standards. Therefore, the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on telecommunication facilities.

In conclusion, based on the above, construction and operation of the Project, considered together with the Related Projects, would have a less than significant cumulatively considerable contribution to cumulative impacts on utilities and service systems.

5.0 ALTERNATIVES

The purpose of an alternatives analysis pursuant to CEQA is to identify feasible options that would attain most of the basic objectives of a proposed project while reducing its significant effects. Provisions of CEQA Guidelines (Section 15126.6) that address the number of project alternatives required in an EIR state the following:

> *The range of alternatives required in an EIR is governed by a "rule of reason;" the EIR must evaluate only those alternatives necessary to permit a reasonable choice. The alternatives shall be limited to those that would avoid or substantially lessen any of the significant effects of a proposed project while meeting most of the underlying project objectives.*

5.1 REQUIREMENTS FOR THE CONSIDERATION OF ALTERNATIVES

An important aspect of EIR preparation is the identification and assessment of alternatives to a proposed project that have the potential to avoid or substantially lessen potentially significant impacts. In addition to mandating consideration of the "No Project" alternative, CEQA Guidelines (Section 15126.6(e)) emphasize the selection of a reasonable range of feasible alternatives and adequate assessment, which allows decision-makers to have a comparative analysis. CEQA Guidelines (Section 15126.6(a)) states:

An EIR shall describe a reasonable range of 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. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

In accordance with CEQA Guidelines 15126.6, this EIR contains a comparative impact assessment of alternatives to the Project. The primary purpose of this assessment is to provide decision-makers and the public with a reasonable number of feasible alternatives to the Project that could attain most of the basic objectives of the Project while avoiding or reducing any of the Project's significant adverse environmental effects. Important considerations for the analysis of alternatives are provided below:

- An EIR need not consider every conceivable alternative to a project
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives
  - Infeasibility
  - Inability to avoid significant environmental effects

5.1.1 No Project Alternative

CEQA Guidelines require that the alternatives be compared to the Project's environmental impacts and that the "No Project" alternative be considered (CEQA Guidelines Section 15126.6(d)(e)). Section 15126.6(d)(e)(1) states:

> *The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed*

> *project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline.*

5.1.2 Consistency with Project Objectives

A project's statement of objectives describes the purpose of the project and the reasons for undertaking the project. To be considered for detailed analysis in the EIR, an alternative must meet most of the Project Objectives. Among the suite of Project Objectives identified by the Applicant, the County as Lead Agency has identified the following as the basic Project Objectives for purposes of screening potential alternatives to the Project:

- To construct and operate utility-scale energy storage technologies that are safe, efficient, and environmentally responsible
- To provide load-serving entities and system operators the ability to effectively manage intermittent renewable generation on the grid, thereby creating reliable, dispatchable generation as a firm, dispatchable resource
- To facilitate deployment of additional renewable energy resources in furtherance of the State of California Renewable Portfolio Standard
- To develop an up to 2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production
- To promote local economic development by maximizing the utilization of the local workforce for a variety of trades and businesses

5.1.3 Feasibility

According to CEQA Guidelines (Section 15126.6(f)(1):

> *Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.*

Based on CEQA Guidelines, "feasible" is defined as, "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines Section 15364). CEQA does not require that an EIR determine the ultimate feasibility of a selected alternative, but rather that an alternative be potentially feasible.

For the screening analysis, the potential feasibility of potential alternatives was assessed using the following considerations:

- **Technological Feasibility:** Is the alternative feasible from a technical perspective, considering available technology? Are there any construction, operation, or maintenance constraints that cannot be overcome?
- **Legal Feasibility:** For example, do legal protections on lands or financing strategies preclude or substantially limit the feasibility of constructing the alternative?
- **Economic Feasibility:** Is the alternative so costly that its costs would prohibit its implementation?

5.1.4 Potential to Avoid or Lessen Significant Environmental Effects

CEQA requires that alternatives to a proposed project have the potential to avoid or substantially lessen one or more significant effects of the Project (CEQA Guidelines Section 15126.6). At the Project and/or cumulative level, the EIR identified no environmental issues that would cause significant and unavoidable environmental impacts after incorporation of mitigation measures.

5.2 METHODOLOGY AND SCREENING CRITERIA

A range of potential alternatives was developed and subjected to the screening criteria. Several representative alternatives were considered. There was no attempt to include every conceivable alternative. The following criteria were used to screen potential alternatives:

- Does the alternative meet most of the Project Objectives?
- Is the alternative potentially feasible?
- Would the alternative substantially reduce one or more of the significant impacts associated with the Project?

5.3 ALTERNATIVES CONSIDERED BUT NOT SELECTED FOR ANALYSIS

As described above, CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the Project shall include those that could feasibly accomplish most of the basic objectives of the Project and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental Project purpose need not be addressed in detail in the EIR. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

In determining what alternatives should be considered in the EIR, it is important to acknowledge the Project, the Project Objectives, significant effects, and unique Project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-makers. (PRC, § 21081(a)(3).) At the time of action on the Project, the decision-makers may consider evidence beyond that found in this EIR in addressing such determinations. The decision-makers, for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-makers adopt a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 998.)

The EIR should also identify any alternatives that were considered by the Lead Agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the Lead Agency's determination. The following alternatives were considered by the County but are not evaluated further in this EIR for the reasons discussed below.

5.3.1 Alternative Location

Off-site alternatives are generally considered in EIRs when one of the means to avoid or eliminate the significant impacts of a project is to develop it in a different available location. Such alternative locations sites would need to be large enough to accommodate the size of the Project. In addition, they need to be located closer to the Project Site so that the Project's proposed loop-in switching station would be able to

connect the Project to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line, which connects to the IV Substation and the CAISO.

Since the lands to the south are owned by BLM, and parcels north of the IID Canal have pending solar entitlements (Imperial County 2018), this alternative would entail locating the Project on an alternative site located on APN 051-390-016, which is zoned A-3 and is located east of the Project Site and south of the Westside Main Canal. This alternative site parcel is approximately 553.8 acres and is privately owned. Based on its proximity to the Project Site, it can be reasonably assumed that the proposed loop-in switching station would be able to connect the Project to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line, which connects to the IV Substation and the CAISO. It is assumed that access to the alternative site would be achieved via SR 98 and the San Diego Gas & Electric's IV Substation Maintenance Road, requiring an extension of this road for at least one additional mile to the Project Site. Similar to the Project, a clear-span bridge may need to be constructed over the Westside Main Canal to access that site.

The General Plan and zoning designation for APN 051-390-016 is Agriculture, and A-3, respectively, which permits battery storage/solar uses pursuant to a Conditional Use Permit. APN 051-390-016 is designated as Prime Farmland. Since 2015, this alternative site has been cropped for alfalfa.

Construction or operational impacts associated with this alternative site location are expected to be similar to the Project and would involve the same environmental resource issues. Because this alternative assumes the same basic design and layout of the Project, it is assumed key engineering or technology issues would be limited and would not inhibit its implementation. However, impacts to agricultural resources would be more adverse, as this alternative would require conversion of Prime Farmland to a non-agricultural use, whereas the Project is identified only as a Farmland of Local Importance. It is assumed that land costs for the area have remained stable and that this alternative location is more sufficiently sized, considering that it is abundantly larger than the Project Site. However, it would be speculative to conclude that the alternative site can be readily purchased from the private landowner at market-rate for an agriculturally zoned parcel. The alternative site is currently actively used for alfalfa agricultural production.

As noted above, alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the Project Objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects. Therefore, this alternative was eliminated from further consideration because of the following:

- It would not substantially reduce the environmental impacts associated with permanent loss of Farmland as an alternative location would likely impact Prime Farmlands or active farmlands.
- If an alternative location is selected farther to the north, the connection to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line would not be feasible.
- It would fail to meet Project Objective 4, which is to develop an up to 2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production.

5.4 ALTERNATIVES CONSIDERED AND ANALYZED

Section 15126 of CEQA Guidelines requires an EIR to identify and discuss a No Project alternative, as well as a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives and would avoid or substantially lessen any of the significant environmental impacts.

Alternatives to the proposed project considered for analysis in this EIR are:

1. No Project Alternative
2. Alternate Access Routes to the Project Site Alternative

3. Reduced Footprint Alternative

5.4.1 Alternative 1 – No Project Alternative

CEQA Guidelines Section 15126.6(e)(1) requires that the No Project Alternative be described and analyzed, "to allow decision-makers to compare the impacts of approving the Project with the impacts of not approving the project." The No Project analysis is required to discuss, "the existing conditions at the time the Notice of Preparation is published . . . 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" (Section 15126.6(e)(2)).

The No Project Alternative assumes the Project would not be approved or constructed on the Project Site. The existing Site would continue to remain fallow, under its current land use and zoning designations. The No Project Alternative would not provide for the storage of power/renewable power to help meet the State's energy need since no storage facilities or technologies would be implemented. In addition, the Site would continue to be inaccessible due to lack of roadway infrastructure and access restrictions. By not constructing the Project, the parcels would remain in their current condition.

5.4.1.1 Impact Analysis

While the No Project Alternative would avoid any Project-related impacts, as defined in §15064.5, it would not meet any of the stated Project Objectives.

Aesthetics

The No Project alternative would not develop the energy storage facility, the gen-tie line, and any access improvements, nor would it result in new construction and operational activities. The No Project alternative would not result in any adverse effects related to the visual character or quality of the Site or lighting or glare. While no impacts would occur under this alternative, no significant impacts to aesthetics were identified for the Project. Nonetheless, overall aesthetic impacts of the No Project alternative would be less than the Project, as no change in visual character would occur.

Agricultural Resources

Under the No Project Alternative, the Project Site would not be developed. A majority of the Project Site comprises fallow agricultural lands, which have not been actively farmed nor irrigated for over 15 years. The future land use may continue to be utilized as agricultural land or fallow land. Compared to the Project, implementation of this alternative would avoid the conversion of land designated as Farmland of Local Importance to a non-agricultural use. Therefore, this alternative would not contribute to the conversion of agricultural lands or otherwise adversely affect agricultural operations and mitigation would not be required. Overall impacts of this alternative to agricultural resources would be less than the Project.

Air Quality

The No Project alternative would not develop the energy storage facility, the gen-tie line, and any access improvements or require new construction and/or operational activities. Construction and operational emissions of criteria air pollutants, ozone precursors, and TACs would not increase above existing levels. Impacts to air quality were determined to be less than significant for the Project. Nonetheless, overall air quality impacts of this alternative would be less than the Project as no construction and operational activity would occur.

Biological Resources

Under the No Project Alternative, existing biological resource conditions within the Project Site would largely remain unchanged and no impact would be identified. Unlike the Project which requires mitigation for potential impacts on wildlife, special status plants, nesting birds, this alternative would not result in construction of battery energy storage facilities that could otherwise result in significant impacts on these biological resources. Because there would be no construction under the No Project Alternative, this alternative would avoid any impacts associated with habitat modification, the movement of wildlife species, and would not conflict with policies or ordinances relative to protection of biological species or any provisions of an applicable habitat conservation plan. Compared to the Project, this alternative would avoid potential direct and indirect impacts on biological resources. Impacts to biological resources within the Project Site, and the Project's significant impacts would be avoided (although project impacts can be mitigated to a less-than-significant level). Overall, impacts to biological resources would be less than the Project.

Geology and Soils

Under the No Project alternative, no grading or construction of new facilities would occur, and existing on-site conditions would not change. Therefore, there would be no impacts on Project-related facilities as a result of local seismic or liquefaction hazards, unstable or expansive soils, or suitability of soils for supporting septic tanks. Compared to the Project, this alternative would avoid impacts related to local geological and soil conditions. Therefore, the No Project alternative would result in less impacts compared to the Project.

Greenhouse Gases

Under the No Project alternative, there would be no GHG emissions resulting from Project construction or operation. Therefore, no impact on global climate change would result from Project-related GHG emissions, primarily associated with construction activities. A less-than-significant impact was identified for construction related GHG emissions for the Project. The Project would develop a utility-scale energy storage facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services, and thereby support development of the County's renewable and clean energy goals, which would ultimately result in an overall beneficial impact on global climate change. While the No Project alternative would not result in new GHG emissions during construction, it would be less beneficial to global climate change as compared to the Project. Because no significant GHG impact has been identified nor associated with the Project, this alternative would not avoid or reduce a significant impact related to this issue and therefore, it is considered similar to the Project.

Hazards and Hazardous Materials

The No Project alternative would not include any new construction or operations. Therefore, no potential exposure to hazardous materials would occur. The Project's impacts to hazards are determined to be less than significant with compliance with applicable codes and mitigation measures. Nonetheless, overall hazards and hazardous materials impacts of this alternative would be less than the Project as no construction and operational activity would occur.

Hydrology and Water Quality

If the No Project Alternative is implemented, the Project would not be constructed or operated. Therefore, there would be no impact to hydrology and water quality as the drainage patterns would not change. There

would be no water quality impacts from construction or operational activities. This alternative would have fewer impacts than the Project. This alternative would have less impacts than the Project.

Land Use and Planning

The No Project alternative would not result in the modification of the existing land use on the Project Site from agricultural to nonagricultural use. A General Plan Amendment and Zone Change would not be required under this alternative unlike the Project. Under the No Project alternative, the Project Site would not be developed and potentially continue to be remain as fallow agricultural land since there is not irrigation or readily available access to the Site. Similar to the Project, the No Project alternative would not divide an established community and would not conflict with any applicable habitat conservation plan or natural community conservation plan. While no significant land use impact has been identified for the Project, this alternative would not require a General Plan Amendment or zone change and therefore, would have fewer impacts than the Project. While no significant land use impact has been identified for the Project, this alternative would not require a General Plan Amendment or zone change and therefore, would have less impacts than the Project.

Tribal Cultural Resources

Under the No Project alternative, no construction would occur. Therefore, no earthwork or ground-disturbing activities would occur. The Project Site would continue to remain as fallow agricultural land. Because no earth-disturbing activities would occur, there would be no potential for disturbance to any TCRs. The Project's impacts on TCRs are determined to be less than significant with mitigation. Implementation of the No Project alternative would eliminate the need for mitigation. Therefore, overall TCRs impacts would be less than the Project.

Utilities and Service Systems

The No Project alternative would not require the expansion or extension of existing utilities, since there would be no Project facilities that would require utility service. Under the current conditions, the Project Site is not served by any utility as the land has been fallow for the last 15 years. The Project would not result in any significant impacts on existing utilities. However, compared to the Project, this alternative would have less impacts than the Project related to utilities and service systems.

5.4.2 Alternative 2 – Alternate Access Routes Alternative

Alternative 2, the Alternate Access Routes alternative would include construction of all components of the Project, including the battery energy storage facility and supporting equipment. No change in Project Site location nor area would occur. However, under this alternative, the clear-span bridge over the Westside Main Canal would be eliminated and an alternative access scenario via the I-State Route 8 and SR 98 would be developed. Under this alternative, only existing unpaved access roads would be used, via I-8 and/or SR, via Route 8 Freeway and/or State Highway 98, and no clear-span bridge would be constructed over the Westside Main Canal. The primary access to the Project would be via the Dunaway Road exit from I-8 (Kumeyaay Highway). From Dunaway Road an approximately seven-mile drive on an unpaved dirt road would lead to the Project Site. The secondary alternative access to the Project Site would be via an unnamed dirt access road after Signal Road off SR 98. From SR 98, an approximately 5mile drive on this unpaved dirt road would lead to the Project Site. The proposed access roads would eliminate the need for a clear-span bridge over the Westside Main Canal but would require a number of right-of-way encroachments on private properties surrounding the Project Site. Obtaining these encroachment permits and/or to obtaining these right-of-way permits on private properties would likely be infeasible due to the high associated costs to the Applicant, as well as the uncertain and difficult legal processes for the Project to obtain access to these roads for such lengthy distances.

5.4.2.1 Impact Analysis

Aesthetics

Under Alternative 2, the Project Site would be developed into a battery energy storage facility and would include new construction and operational activities. The new access routes would result in temporary construction impacts similar to the Project. Operational impacts due to the new access roads would not change visual character of the area or result in deterioration of the area's scenic quality, or result in new sources of light and glare, since these dirt roads are currently in use for adjacent agricultural uses. No significant impacts to aesthetics were identified for the Project. Alternative 2 would also result in less than significant effects related to the visual character and light and glare as the Project components would remain the same. Overall, aesthetic impacts of Alternative 2 would be similar to the Project, as a similar change in visual character of the Project Site would occur.

Agricultural Resources

Under Alternative 2, the Project Site would be developed into a battery energy storage facility and have alternate access routes to the Site, in order to eliminate the need for a clear-span bridge over the Westside Main Canal. The Project Site comprises fallow agricultural land, which have not been actively farmed nor irrigated for over 15 years. This alternative would still result in the conversion of land designated as Farmland of Local Importance to a non-agricultural use, similar to the Project. This alternative could potentially contribute to the conversion of agricultural lands or adversely affect other agricultural operations. The new access roads would be located on existing dirt roads and not impact the adjacent agricultural operations. This alternative could contribute to the conversion of agricultural lands and would adversely affect agricultural operations similar to the Project. Therefore, the same mitigation measures would be implemented to reduce impacts to agricultural resources to less than significant levels, and impacts would be similar to those of the Project.

Air Quality

Under Alternative 2, construction and operational emissions of criteria air pollutants, ozone precursors, and TACs would increase above existing levels due to the longer site access routes to the Project Site that would require more grading and compaction. Impacts to air quality were determined to be less than significant for the Project with mitigation. The same mitigation measures would be required under this alternative to reduce impacts to less than significant. Nonetheless, overall air quality impacts of this alternative would be more significant than the Project as additional access road construction activity would occur.

Biological Resources

Under Alternative 2, all components and infrastructure would be developed. Additional biological resources may potentially be impacted due the construction of lengthy access routes into the Project Site. This alternative could likely require additional mitigation for potential impacts on wildlife, special status plants, and nesting birds since the alternative access routes could result in significant impacts on these biological resources. This alternative may cause greater impacts related to the potential to avoid impacts associated with habitat modification and the movement of wildlife species and may conflict with policies or ordinances relative to protection of biological species or provisions of an applicable habitat conservation plan. Compared to the Project, this alternative would have more significant direct and indirect impacts on biological resources. Overall, impacts to biological resources would be greater than the Project.

Geology and Soils

Under Alternative 2, grading and construction of new facilities would still occur, and existing on-site conditions would change. Potential impacts with regard to seismic or liquefaction hazards, unstable or expansive soils, or suitability of soils for supporting alternative wastewater treatment systems would remain less than significant, under Alternative 2. Impacts related to the potential for soil erosion would require implementation of BMPs or other measure to help ensure that erosion impacts would remain less than significant, due to the length alternative roadways along the Westside Main Canal and adjacent to active agricultural uses. Similar to the Project, under this alternative, potential impacts to unknown paleontological resources would be reduced to less than significant levels with implementation of measures related to inadvertent discovery. This alternative would have similar impacts than the Project in relation to geology and soils.

Greenhouse Gases

Under Alternative 2, there could be more GHG emissions resulting from Project construction and operation, due to the longer access routes to the Project Site. A less than-significant-impact was identified for construction and operation related GHG emissions for the Project. Under this alternative, the same regulatory measures for fugitive dust would be implemented during construction. The number of employees would be same as the Project for Alternative 2, this alternative but the trip length may change. The Project assumed a 20-mile trip length for modeling GHG. Considering the alternative access routes are longer, the trip length is anticipated to add additional 10 to 15 miles that would result in an increase in GHG emissions. However, majority of the GHG emissions are from the Project's auxiliary loads and that would stay the same under Alternative 2. Overall, in the long run, the Project would be a net generator of clean, renewable, electricity compared to traditional fossil fuel electricity generation and would result in an overall beneficial impact on global climate change. Impacts under Alternate Access Routes Alternative would be similar to the Project.

Hazards and Hazardous Materials

Under Alternative 2, there would still be new construction and operations of a battery energy storage facility. Therefore, potential exposure to hazardous materials could occur. The Project's impacts with respect to hazards and hazardous materials were determined to be less than significant after compliance with applicable codes and mitigation measures. Overall, impacts related to hazards and hazardous materials for Alternative 2 would be similar to the Project, as construction and operational activity would be similar.

Hydrology and Water Quality

Under Alternative 2, there would still be new construction and operations of a battery energy storage facility. Therefore, there would be potential impact to hydrology and water quality as the drainage patterns would alter the existing conditions of the Project Site and require mitigation similar to the Project. No additional impervious surfaces would be created than those evaluated for the Project as the new access roads would remain pervious. Under Alternative 2, there would be potential water quality impacts from construction and operational activities; however, impacts related to this alternative would be similar to those of the Project.

Land Use and Planning

Under Alternative 2, there would be a modification of the existing land use from an agricultural to a non-agricultural use. A General Plan Amendment and Zone Change would similarly be required under this alternative. Similar to the Project, this alternative would not divide an established community and would not conflict with any applicable habitat conservation plan or natural community conservation plan as the proposed access routes would be on existing dirt roads currently in use. However, this alternative would require a number of encroachments permits on privately owned land. Obtaining these encroachment

permits and/or to obtain along these right-of-way permits on private properties would likely be infeasible due to the high associated costs to the Applicant, as well as the uncertain and difficult legal processes for the Project to obtain access to these roads for such lengthy distances. No significant land use impact has been identified for the Project. Therefore, this alternative would have similar impacts as compared to the Project.

Tribal Cultural Resources

Under Alternative 2, construction of the battery energy storage facility would occur. Therefore, construction related earthwork and ground-disturbing activities would occur. The Project Site would change its use from an agricultural use to an industrial use and would result in potential for disturbance to TCRs. The Project's impacts on TCRs are determined to be less than significant with mitigation related to a worker awareness program and inadvertent discovery protocols. Implementation of this alternative would be similar to the Project and would require the same mitigation measures.

Utilities and Service Systems

Under Alternative 2, the expansion and extension of existing utilities would occur and would require utility service. Under the current conditions, the Project Site is not served by any utility as the land has been fallow and unused for the last 15 years. The Project would not result in any significant impacts on existing utilities and impacts. Alternative 2 would be similar impacts to the Project, in relation to utilities and service systems.

5.4.3 Alternative 3 – Reduced Footprint Alternative

Under Alternative 3, the Reduced Footprint Alternative, 122 acres would be developed on the Project Site, constituting a reduction of 25 percent of the Project's currently proposed size of 163 acres. Under Alternative 3, the Project footprint would be reduced by not developing the approximately 40-acres of land located in the southeast section of the Project Site. Under Alternative 3, the capacity of the battery energy storage system at full buildout would remain the same at 2,000 MW. Similar to the Project, the Reduced Footprint Alternative would include a substation, switching station, O&M building, and associated infrastructure. Alternative 3 would create some logistical challenges related to the battery storage facility, as the battery storage units include racks and cell stacks which can only be assembled in a limited number of configurations. The CBC dictates a specified distance between each cell stack for safety and fire prevention. Stacking the units vertically would result in heavy structural loading and seismic concerns. Given this, the height of the storage buildings may not be extended, unless a variance to the height limit is accepted by the County. In addition, the BTM solar generation, which is planned to serve as auxiliary power may also face similar logistical challenges. Because the on-site solar generation is planned to be used both on the building rooftops and/or as ground-mounted units, the reduced acreage required by this alternative makes it less practicable to include solar PV units as an auxiliary power source. However, it is assumed that key engineering or technology issues would be limited and would not inhibit the implementation of this alternative. In addition, this alternative would also request a General Plan Amendment and Zone Change, similar to the Project.

5.4.3.1 Impact Analysis

Aesthetics

Under Alternative 3, the Project Site would be developed into a battery energy storage facility and would include new construction and operational activities. Alternative 3 may result in adverse effects related to the visual character and quality of the Project Site in relation to potential lighting and glare and an increased building height above the height restrictions of the County Municipal Code. Potential impacts under this alternative could be more significant compared to the Project. Overall, aesthetic impacts related to

Alternative 3 would be slightly greater than the Project, as changes in visual character of the Project Site may be more noticeable.

Agricultural Resources

Under Alternative 3, the Project Site development of a battery energy storage facility would be reduced by 25 percent. Therefore, impacts to agricultural lands would be reduced, as less land designated as Farmland of Local Importance would be converted to a non-agricultural use. This alternative would reduce the impact on conversion of agricultural lands; however, as with the Project, mitigation would still be required. Overall, impacts of this alternative to agricultural resources would be less than those of the Project, as less agricultural land would be converted to a non-agricultural use.

Air Quality

Under Alternative 3, construction and operational emissions of criteria air pollutants, ozone precursors, and temporary air contaminants would decrease under the Reduced Footprint Alternative. Impacts to air quality were determined to be less than significant for the Project. Nonetheless, as with the Project, County-required mitigation would be implemented to further reduce potential air quality impacts. Overall air quality impacts of this alternative would be less than those of the Project, as the Project footprint and related air quality emissions would be reduced by 25 percent due to the reduction in less grading.

Biological Resources

Under Alternative 3, a reduced amount of biological resources would have the potential to be impacted under the Reduced Footprint Alternative. This alternative would reduce or remove additional mitigation for potential impacts on wildlife, special status plants, and nesting birds, since the reduction of the Project footprint would accordingly reduce potential impacts on biological resources. This alternative would also reduce the potential impacts associated with habitat modification, the movement of wildlife species, and would lessen potential conflict with policies or ordinances relative to protection of biological species or any provisions of an applicable habitat conservation plan. As compared to the Project, this alternative would have less direct and indirect impacts on biological resources than implementation of the full Project. Overall, impacts to biological resources under Alternative 2 would be less than those of the Project.

Geology and Soils

Under Alternative 3, grading and construction of new facilities would be reduced due to the decreased development footprint. Therefore, there would be reduced impacts on Project-related facilities as a result of local seismic or liquefaction hazards, unstable or expansive soils, or suitability of soils for supporting septic tanks; however, mitigation measures related to the inadvertent discovery of unknown paleontological resources would still be required. As compared to the Project, Alternative 3 would have lesser impacts related to geology and soils.

Greenhouse Gases

Under Alternative 3, there would be reduced GHG emissions resulting from Project construction and operation under the reduced Project footprint. Therefore, impacts related to global climate change would be reduced from construction related GHG emissions, primarily associated with the reduction in construction activities. A less-than-significant impact was identified for construction related GHG emissions for the Project. Similarly, Alternative 3 would have less-than-significant impact for construction related GHG emissions. Overall, in the long run, the Project would develop a utility-scale energy storage facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid as firm, reliable generation and/or grid services, and thereby support development of

the County's renewable and clean energy goals, which would ultimately result in an overall beneficial impact on global climate change. However, overall GHG emissions from the Reduced Footprint Alternative would be similar to those of the Project as the storage capacity is the same.

Hazards and Hazardous Materials

Under Alternative 3, there would be new construction and operations of a battery energy storage facility on a reduced Project footprint, that may pose some challenge for layout of the battery stacks and cells that need to have some specific distance between them. While these distances and layout are regulated by CBC, considering the footprint is reduced under this alternative, additional mitigation measures may be required to reduce impacts from a hazardous situation such thermal runaway. The Project's impacts to hazards were determined to be less than significant, with compliance with applicable codes and implementation of mitigation measures, which would also be required under Alternative 3. However, since additional measures may potentially be required under Alternative 3, impacts related to hazards and hazardous materials would be greater than the Project, as operation activities would be occurring in a smaller area.

Hydrology and Water Quality

Under Alternative 3, there would be new construction and operations of a battery energy storage facility under the Reduced Footprint Alternative. Impacts related to hydrology and water quality would be less than those of the Project, as the drainage patterns would be reduced in relation to the existing conditions of the Project Site. There would be a reduction in the potential of water quality impacts from construction and operational activities. Overall, this alternative would have less impacts as compared to the Project.

Land Use and Planning

Under Alternative 3, there would be a modification of the existing land use from an agricultural to a non-agricultural use. A General Plan Amendment and Zone Change would similarly be required under this alternative. Under Alternative 3, the Project Site would be developed and will no longer remain as fallow and unused agricultural land. Similar to the Project, this alternative would not divide an established community and would not conflict with any applicable habitat conservation plan or natural community conservation plan. No significant land use impacts were identified for the Project. Therefore, this alternative would have similar impacts related to land use as compared to the Project.

Tribal Cultural Resources

Under Alternative 3, construction of the battery energy storage facility would occur within a reduced Project footprint. Therefore, construction related earthwork and ground-disturbing activities would impact a smaller footprint than the Project. The Project Site would still require a change inland use designation from Agriculture to Industry, and zone change from A-3 to M-2, but the reduced Project footprint would result in a reduction of potential disturbances to TCRs. The Project's impacts on TCRs were determined to be less than significant with implementation of mitigation measures. Impacts to TCRs under this alternative would be less than those of the Project and would have a less than significant impact with implementation of mitigation measures.

Utilities and Service Systems

Under Alternative 3, the expansion and extension of existing utilities would occur on a reduced Project footprint; however, the Site would still require utility service. Under current conditions, the Project Site is not served by any utilities, as the land is fallow and has been unused for at least the last 15 years. The Project

would not result in any significant impacts on existing utilities. Alternative 3 would have similar impacts to the Project, as related to utilities and service systems.

5.5 ANALYSIS OF ALTERNATIVES

This section identifies the environmental effects of the alternatives and compares the environmental effects with those resulting from the Project. Table 5.5-1 provides a summary of the comparisons and Table 5.5-2 provides a comparison of the alternatives to the Project Objectives. An "environmentally superior" alternative is also identified.

Table 5.5-1 Comparison of the Environmental Effects of Project Alternatives

	Alternative 1	Alternative 2	Alternative 3
Aesthetics	L	S	G
Agriculture and Forestry Resources	L	S	L
Air Quality	L	G	L
Biological Resources	L	G	L
Geology and Soils	L	S	L
Greenhouse Gas Emissions	S	S	S
Hazards and Hazardous Materials	L	S	G
Hydrology and Water Quality	L	S	L
Land Use and Planning	L	S	S
Tribal Cultural Resources	L	S	L
Utilities and Service Systems	L	S	S

Notes:
S = Similar impact compared to the Proposed Project
L = Less Impact compared to the Proposed Project
G = Greater Impact compared to the Proposed Project

Table 5.5-2 Comparison of Project Objectives

	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5
Alternative 1	No	No	No	No	No
Alternative 2	Yes	Yes	Yes	Yes	Yes
Alternative 3	Yes	Yes	Yes	Yes	Yes

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based upon the evaluation described in this section, the No Project Alternative (Alternative 1) is considered to be the environmentally superior as it would avoid all adverse impacts associated with the proposed Project. The No Project Alternative was determined to have less adverse environmental impacts than the Project on most issues overall assuming that the site remains in its existing condition as farmland. The No Project Alternative, however, would not meet the objectives of the proposed project.

State 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 5.5-2, Alternative 2 would result in greater impact to air quality, and

biological resources because of longer access route that would result in increased trip length and disturbance of habitat. Alternative 3 would result in greater impacts to aesthetics as a variance would be required to exceed the County's ordinance for height restrictions. In addition, impacts to hazards could be greater as the battery layout would be adjusted for reduced footprint and may require additional mitigation measures or design features to reduce impacts from hazardous conditions such as thermal runaway. However, most of the impacts under Alternative 3 would result in less impacts than the Project as compared to Alternative 2. While both Alternatives 2 and 3 would meet all Project objectives, Alternative 3, is considered the Environmentally Superior Alternative other than the No Project Alternative as overall it would result in fewer impacts.

6.0 OTHER CEQA CONSIDERATIONS

The Applicant is proposing to develop the Westside Canal Battery Storage Project (proposed Project, Project) which would provide a utility-scale energy storage complex with solar panels, Li-ion battery systems, and/or flow battery technologies distributed throughout the Site. The Project would allow for excess, intermittent renewable energy to be stored and later dispatched optimally back into the electric grid as firm, reliable generation. The Project complements both the existing operational renewable energy facilities, and those planned for development, in the County and supports the broader Southern California bulk electric system by serving as a transmission asset.

6.1 SOCIOECONOMIC IMPACTS

The EIA examined impacts of converting the Site parcels from an agricultural use to an industrial use for battery storage. Three analyses were undertaken to determine how the Project would affect the region: 1) an EIA; 2) a JIA; and 3) a FIA. The findings of each analysis are briefly summarized below with the full report provided as Appendix C.2 of this EIR.

6.1.1 Economic Impact Analysis

The EIA calculates the predicted impact to a community or region as a result of the Project. It gives an understanding of the quantity of dollars that will flow through an economy because of a project. In the case of an energy battery storage project, this includes such items as labor, construction materials, local purchases, and operations. This includes all known direct and indirect expenditures from both construction and operation for the projected life of the Project. The economic benefits to the County and region, due to Project operation, would be approximately $165.13 million over the lifespan of the Project, at full build-out, not including governmental revenues from taxes and fees.

6.1.2 Employment or Jobs Impact Analysis

The JIA calculated the total amount of construction and operational jobs specific to the Project and determined that the Project would generate the equivalent of 1,549 full-time one-year equivalent construction jobs over the construction period (five-phases in odd years (1-9)) and 20 full-time equivalent permanent jobs, at buildout.

6.1.3 Fiscal Impact Analysis

The FIA calculates the amount of revenue that a governmental agency is expected to receive and calculates the projected costs they will incur to provide appropriate services to both the Project and the additional population/employment generated as a result of the Project. A comparison is undertaken to determine if the Project would generate either economic benefit or cost to the government agency.

Based on the FIA analysis, the Project would generate approximately $81.53 million in net local (County) tax revenue over the 30-year life of the Project. This is derived from an estimated $34.77 million in sales tax revenue and $46.77 in net property tax revenue. It is projected that it would cost the County about $22.46 million to provide appropriate services to the Project and related employment, thus generating a projected surplus to the County of approximately $59.08 million over the 30-year period (subject to acceptance of the recommendations provided within the report in Appendix C.2).

These are all new economic benefits and jobs related to a Project Site that has not been actively used for agriculture or any other uses for at least fifteen (15) years.

6.1.4 Statement Regarding Urban Decay as a Result of the Proposed Project

The CEQA Guidelines discuss and define the parameters for which the consideration of socioeconomic impacts should be included in an environmental evaluation. CEQA Guidelines Section 15131 states that "economic or social information may be included in an EIR or may be presented in whatever form the agency desires." Section 15131(a) of the Guidelines states that "economic or social effects of a project shall not be treated as significant effects on the environment." CEQA Guidelines Section 15131(b) also states that "economic or social effects of a project may be used to determine the significance of physical changes caused by the project." One example that has been used by others has been the physical division of a community if rail lines were installed, thereby bisecting the community. It is possible that the impacts upon the community could be measured.

In recent years, California Courts have generally defined the term "urban decay" to mean the physical changes that a projects potential socioeconomic impacts could bring to other parts in a community. The case that brought the concept of urban decay to light is Bakersfield Citizens for Local Control v. City of Bakersfield (204) 124 Cal.App.4th 1184 in which the court set aside two EIR's for proposed Wal-Mart projects that would have been located less than 5 miles from each other. This appears to be the first time the courts used the words "urban decay" rather than "blight". In essence, the courts ruled that two Wal-Mart projects could result in a chain reaction of store-closures and vacancies because new retail growth may or may not be supported by other changes in market conditions (i.e., the downtowns would become ghost towns because the Wal-Mart(s) moved the retail business away from the urban center).

As noted in the EIA, the surrounding area contains a combination of solar energy generation projects and agriculture uses (as well as agriculture infrastructure). The Project is in keeping with the users in that corridor and in and of itself will not create a physical change to the physical characteristics of that area. In fact, the Project would add significant value to the solar generation in that area, as it would create needed storage capacity for energy to be placed onto the grid at peak demand times.

6.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits (including region-wide or statewide environmental benefits of a project) against its unavoidable environmental risks when determining whether to approve the project. The County can approve a project with unavoidable adverse impacts if it adopts a "Statement of Overriding Considerations" setting forth the specific reasons for its decision. Based on the analysis provided in Sections 3.1 through 3.11, the Project would not result in any significant and unavoidable adverse impacts, and a Statement of Overriding Considerations would not be required.

6.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed project. A project is identified as growth inducing if it "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth-inducing impacts can occur when development of a project imposes new burdens on a community by directly inducing population growth or by leading to the construction of additional development in the project area. Also included in this category are projects that would remove physical obstacles to population growth, such as the construction of a new roadway into an undeveloped area or a wastewater treatment plant with excess capacity to serve additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the immediate development that they facilitate and serve. Projects that physically remove obstacles to growth or projects that indirectly

induce growth are those that may provide a catalyst for future unrelated development in the area (such as a new residential community that requires additional commercial uses to support residents). The growth-inducing potential of a project could also be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans or in projections made by regional planning agencies.

Potential growth-inducing components of the Project addressed in this section relate to employment and population growth, increased power reliability and regional population growth, and increased transmission capacity that supports renewable power development.

6.3.1 Employment and Population Growth

6.3.1.1 Construction/Decommissioning Workforce

Construction phases of the Project are expected to generate the equivalent of 1,549 full-time one-year equivalent construction jobs. Decommissioning is expected to have fewer construction workers and would be of much shorter duration. Workers are expected to be hired from within the County to the extent practicable. Some of the workers originating from outside of the County may temporarily relocate to accommodations within the Project area for the duration of construction activities.

The vacancy rate for unincorporated Imperial County is 24.6 percent, which denotes a surplus of available housing (SCAG 2020). Therefore, it is reasonable to assume that the demand for temporary accommodations during construction would be accommodated by existing housing in the region, and no new housing would be needed.

The County had a labor force of 67,100 workers and an unemployment rate of 17.7 percent in December 2020 (EDD 2021). If all labor would be hired from within the county, this would represent approximately two percent of the total labor force, although the construction workers are also expected to come from the surrounding areas. Therefore, construction and decommissioning of the Project would not trigger additional population growth in the area.

6.3.1.2 Operational Workforce

No more than 20 full-time staff would be employed during operation of the Project at full build out. Considering the high vacancy rates in the County, it is anticipated that adequate housing would be available without the need for new housing. Therefore, Project operation would not result in new growth in the area relating to the potential population increase. There would be no new growth in employment and housing in the area from new restaurants, mobile home parks, convenience stores, or other services that would serve the workers during project construction, because existing facilities in the region would be adequate to accommodate both the construction and operations workforces.

The Project would also result in permanent change in the land use from an agricultural use to an industrial use. The change to an industrial land use designation could potentially attract a new use that could result in additional growth. However, any future use upon expiration of the CUP is speculative and would be subject to subsequent regulatory review.

6.3.2 Increased Power Reliability

While the Project would contribute to the reliability of the energy supply, which indirectly supports population growth, the development of the Project is responding to the State's need for renewable energy to meet its RPS. Unlike a gas-fired power plant, the Project is not being developed as a source of base load power in response to growth in demand for electricity. The development and operation of the Project would create energy stability in times of production shortages and outages and provide energy at times of peak demand (such as early evening hours) to accommodate and support existing County energy demands; however, it

would not foster any new growth, as the energy would be used to support existing and projected growth. The factors affecting growth are so diverse that any potential connection between energy storage and growth would necessarily be too speculative and tenuous to merit extensive analysis.

6.3.3 Increased Transmission Capacity

The Project would include a new loop-in switching station on the Project Site to connect to the existing IID Campo Verde-Imperial Valley 230 kV radial gen-tie line. This existing gen-tie line connects to the IV Substation approximately one-third mile south of the Project. The power from the on-site substation would then be transferred to the IV Substation via this gen-tie line. This connection is described in detail in Section 2, Project Description. No upgrades are proposed to the IV Substation that would increase transmission capacity. IID is a public agency, regulated by the CPUC. The utility's transmission system is operated by CAISO under regulations established by the Federal Energy Regulatory Commission. When an electricity generator requests use of IID's transmission facilities, IID is required to provide access after completion of power flow and cost studies. The CPUC evaluates each IID project to ensure that its need and costs are justified and appropriate, and that financial effects on California electricity ratepayers are appropriate. Any transmission system upgrades that are required as a result of other energy storage or renewable energy projects would need to be evaluated by the CPUC, in accordance with CEQA, as a part of the CPUC permitting process. Because any potential transmission system upgrades would be speculative, the potential for population growth induced by the transmission system upgrades would also be speculative. Therefore, the Project is not expected to be large enough to induce the development of other large battery energy storage projects and population growth in the region.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified. Irreversible impacts can result from loss of habitat of sensitive biological resources, change in land use, damage caused by environmental accidents associated with project construction or operation, or damage to cultural or paleontological resources.

As discussed in Section 3.2 and Section 3.9, construction and operation of the Project would result in permanent conversion of 148 acres of agricultural land, identified as Farmland of Local Importance to non-agricultural uses. In addition, the Project includes a zone change from A-3 to M-2. Future use of the Site after decommissioning is not known but would be subject to a separate regulatory review and is not discussed further. However, decommissioning activities would occur in accordance with an approved Decommissioning Plan. The Applicant would implement mitigation measures to reduce impacts to the loss of Farmland of Local Importance. However, the loss of Farmland would still be a permanent change. Based on the data presented in the JIA, EIA and FIA, the Project has demonstrated significant economic benefits, in conformance with Objective 1.8 of the County General Plan Agricultural Element. Considering the land has been fallow and non-irrigated for at least last 15 years, the Project would facilitate deployment of additional renewable energy resources in furtherance of the RPS. Therefore, conversion of farmland to a non-agricultural use would not be considered a significant irreversible change.

Construction of the Project would require a permanent commitment of natural resources from the direct consumption of fossil fuels, construction materials, and energy required to produce materials, as well as the manufacture of new components; most Project components would be recycled or repurposed at the end of the Project's useful life (see Section 2, Project Description). The Project would not result in significant impacts on air quality due to emissions of NO_X, and PM_{10} during construction. Nevertheless, as discussed in Section 3.3, ICAPCD required mitigation measures would be implemented to further reduce impacts on air quality to a less than significant level.

Construction and operation of the Project would require the use of a limited amount of hazardous materials, such as fuel, lubricants, and cleaning solvents. All hazardous materials would be stored, handled, and used in accordance with applicable federal, state, and local regulations. As noted in Section 3.7, the potential for harm from a thermal runaway hazard is determined to be less than significant. The Applicant would be required to develop and comply with a SWPPP as noted in HYD-1. Appropriate implementation of these plans and practices would reduce the potential for environmental accidents associated with the Project to less than significant levels.

One of the objectives of the Project is to construct and operate a battery energy storage facility that is safe, efficient, and environmentally responsible. The Project would develop a facility that would store energy generated from the electrical grid, and optimally discharge that energy back into the grid upon demand. As discussed above, resources that would be consumed as a result of Project implementation include water, electricity, and fossil fuels during construction and operations; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources over the long-term. Compliance with all applicable building codes, as well as County policies and the mitigation measures identified in this EIR, would help ensure that natural resources are conserved to the extent feasible.

7.0 EFFECTS FOUND NOT TO BE 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 and were therefore not discussed in detail in this EIR. Based on the Initial Study prepared for the Project (Appendix A), the County has determined that the Project would not have the potential to cause significant adverse effects associated with the issues identified below. These topics have not, therefore, been addressed in detail in this EIR.

7.1 CULTURAL RESOURCES

To be considered historically significant, a resource must meet one of the four criteria for listing outlined in the CRHR (CEQA Guidelines 15064.5(a)(3)) and noted below:

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 in 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.

Literature review and cultural resources surveys of the Project study area did not identify any other historical sites within the Project study area and the Project would have no impact to the significance of a historical resource as identified in Section 15064.5. However, a section of the Westside Main Canal is eligible for listing on the NRHP and CRHR on the local and state levels under Criterion A for its significance in association with development of the Imperial Valley. The Westside Main Canal would be impact by the Project due to the construction of the proposed clear-span bridge across the Westside Main Canal to provide vehicular access from Liebert Road. The proposed bridge would not result in physical alteration of the Westside Main Canal itself. Impacts from maintenance improvements such as dredging and concrete lining, the proposed bridge will not affect the qualities or values that qualify the resource for listing in the NRHP or CRHR. The Westside Main Canal would still maintain its association with the development of agriculture in the Imperial Valley. The potential for intact subsurface prehistoric or historic historical sources to be present on the Project property is considered very low due to the extensive disturbance owed to agricultural activities. Although the potential for currently encountering subsurface human remains within the Project footprint is unlikely, there remains a possibility that human remains could be present beneath the ground surface, and that such remains could be exposed during Project construction. If evidence of human remains is discovered, construction activities within 50 feet of the discovery shall be halted or diverted, and the County Coroner will be notified (Section 7050.5 of the Health and Safety Code). No subsurface disturbance will occur during Project operation. Decommissioning activities will involve the removal of some Project components. The ground disturbance that would occur as a result of the decommissioning would be in the same locations of disturbance that occurred during the construction of the Project. Additional ground disturbances outside of those during construction are not anticipated. Therefore, no further disturbance of potential human remains is anticipated to occur.

7.2 ENERGY

The construction and operation of the Project would include the consumption of water, electricity, and fossil fuel resources. The energy required to produce new materials would result in the irretrievable commitment of natural resources. The amount and rate of consumption of resources for the anticipated equipment and materials required for the construction of the Project would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. The Project would provide up to approximately 400 MW (per phase) of firm dispatchable at times when demand is highest. This energy resource would be used to create other goods or more efficiently power regional services, thus ensuring that no wasteful or inefficient consumption of energy resources would occur and offset demand which would otherwise be met by less efficient methods of energy generation.

The Project would be compliant with all state and local plans for renewable energy or energy efficiency because it would develop a demand responsive source of power helping to offset the use of nonrenewable resources and contribute to an overall reduction of nonrenewable resources currently used to generate electricity. The Project would increase the effectiveness of other regional renewable projects by increasing the storage capacity. Therefore, the Project would have no impact on a state or local energy plan.

7.3 MINERAL RESOURCES

The Project Site is primarily zoned for agricultural use except for a portion of the Site owned by the BLM. The Site is not utilized for mineral resource production. According to the California DOC, there are no mapped mineral resource zones in or near the Project Site. Therefore, the Project would not result in a significant impact on the availability of a known mineral resource or mineral resource zone.

7.4 NOISE

Noise associated with construction of the Project would potentially result in short-term impacts to the surrounding properties; however, there are no nearby residences which would be affected by the noise associated with either the construction or operation of the Project. The construction activities would only occur between Monday through Friday between the hours of 7:00 AM and 7:00 PM, or Saturday between the hours of 9:00 AM and 5:00 PM, which would be in compliant with the time-of-day restrictions and noise level limits set forth in the County's General Plan Noise Element. However, during hot weather, it may be necessary to commence work earlier than the designated times to avoid pouring concrete during high ambient temperatures. If construction is to occur outside the County's specified working hours, coordination with the County would occur in advance of these activities. As modeled in the Noise Technical Report (Appendix M), the noise associated with the Project operation would attenuate to less than 60 dB(a) $L_{eq(8h)}$ which would not exceed the 70 dB(a) property line noise level limit. Therefore, the Project would not result in a generation of 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, noise ordinance, or applicable standards.

The nearest sensitive receptor to the Project is a residence located 0.85 mile from the Project's property line. The main vibratory sources from the Project would be generated during the temporary and short-term construction activities. The General Plan or Noise Ordinance does not contain any specific performance standards or vibration, therefore, a vibration analysis exceeding 0.1 PPV would be considered the threshold of concern. At this level, the vibration would be barely perceptible by humans, with a doubling of vibration level still required to potentially generate damage to structures. For demonstration, a typical piece of construction such as a large bulldozer produces 0.0048 PPV at 175 feet. As the nearest sensitive receptor is located 0.85 miles from the Project's property line, the PPV produced by a large bulldozer would be significantly less than the 0.1 PPV threshold of concern. Therefore, vibration generated by the Project would not result in a significant impact to nearby sensitive receptors.

The Project is not located within the bounds of any airport land use plan, as outline in the County Airport Land Use Compatibility Plan. Therefore, the Project would not impact a private airship or airport land use plan.

7.5 POPULATION AND HOUSING

Due to the longevity of the construction activities, approximately 10 years, it is assumed that the construction workforce would likely be expected to be filled by the local workforce. During operations, workers would be present at the Project Site for maintenance activities. Typical maintenance would be expected to require up to 20 employees at full buildout. The maintenance staff would be expected to be filled by the local workforce that has readily available labor and would not induce unplanned population growth. Therefore, the Project would not have the potential to cause substantial direct or indirect population growth.

As the Project Site is currently zoned as A-3, the Project would not remove any available housing units or displace existing people or housing. Therefore, the Project would not impact population and housing.

7.6 PUBLIC SERVICES

Increased demand in fire protection, emergency services, and police services are typically correlated with an increase in residential population. Approximately 20 full time employees would remain for Project O&M after Project buildout. This relatively small number of permanent employees would not result in a significant increase in the need for fire protection and emergency services. The Project includes an on-site fire protection system for all battery systems and additional security measures, such as an eight-foot tall barbed wired-topped fence, a camera equipped call button at the front gate, security cameras throughout the Project Site, and an on-site security guard during non-active construction hours. Therefore, the Project would not cause a substantial increase in the demand for police and fire protection services.

As the Project does not include a housing element, there would be no increase in residential population size. Therefore, the Project would not impact schools, parks, or other public facilities.

7.7 RECREATION

The Project is limited to a battery energy storage facility and does not include a component that would result in population growth or increased demand for recreational facilities. Therefore, the Project would not impact parks or other recreational facilities.

7.8 TRANSPORTATION

A Traffic Impact Analysis was prepared for the Project and is included as Appendix L in this EIR. The traffic analysis concluded, based on the significance criteria of the County and Caltrans, that roadway segments would operate as LOS B or better with the Project. The Project is anticipated to generate an increase in construction related traffic. Although an increase is expected, the Project-related traffic is still considered lower than the County's threshold of significance as operating at LOS B or better. As such, the Project would not result in a significant conflict with a program plan, ordinance, policy addressing the circulation systems, or with CEQA Guidelines Section 15064.3 subdivision (b).

The Project is located in a rural portion of the County with low traffic volumes. The Project would not increase hazards due to a geometric design or an incompatible use with surrounding agricultural land.

The Project includes a clear-span bridge over the Westside Main Canal to provide access to the Project Site from the north. Additional access roads would be paved on the north and south sides of the Westside

Main Canal providing access. Until the bridge construction is complete, temporary access is proposed from the south of the Project Site at SR-98 to Drew Road, or from the north of the Project Site at I-8 to Wixom Road. Temporary and permanent access helps ensure that adequate access would consistently be provided. Therefore, the Project would result in less-than-significant impacts to inadequate emergency access.

7.9 WILDFIRES

The Project is not located in a State Responsibility Area, or near a State Responsibility Area, or on lands classified as a VHFHSZ. Under these significance thresholds, the Project would not significantly impact an adopted emergency response or evacuation plans, exacerbate wildfire risks, or expose people or structures to significant risks from runoff, instability, or drainage changes. Therefore, impacts to wildfire would be less than significant.

8.0 LIST OF PREPARERS

This EIR was prepared for the Imperial County by Stantec Consulting Services Inc., 290 Conejo Ridge Avenue, Thousand Oaks, CA 91361. The following professionals participated in its preparation.

8.1 COUNTY OF IMPERIAL

Jim Minnick	Director of Planning and Development Services
Michael Abraham	Assistant Director of Planning and Development Services
David Black	Project Planner
Patricia Valenzuela	Project Planner

8.2 STANTEC CONSULTING SERVICES INC. (CONSULTANT TO COUNTY)

Robert Prohaska	Principal Planner
Kevin Kohan	Senior Environmental Planner
Christine Abraham	Principal Environmental Planner
Tina Garg	Senior Environmental Planner
Gilberto Ruiz	Principal Environmental Planner
Emily Medler	Environmental Scientist
Lindsay McDonough	Environmental Planner
Michael Weber	Senior Principal
Jared Varonin	Principal Biologist
Sarah Toback	Staff Biologist
Eric Clark	Project Engineer
Ben Chevlen	Senior Geologist
Mitch Marken	Principal Cultural Scientist
Hubert Switalski	Senior Archaeologist
Jonya Lofgren	Atmospheric Scientist
Blake Barroso	Air Quality Specialist
StephAnnie Roberts	Senior Planner
Patrick Meddaugh	Associate Scientist
Ross Ocampo	Senior CAD Technician
Danny Law	GIS Analyst
Ann Tolman	Technical Editor
Sylvia Langford	Technical Editor
Megna Murali	Environmental Planner

8.3 TECHNICAL REPORT AND SUPPORTING DOCUMENT AUTHORS

8.3.1 Aesthetics & Visual Resources

Adam Gevanthor	Principal Development Design Services and GraphicAccess Inc. Visual Resource Impact Assessment
Justin Overdevest	Good Company Solar Glare: Hazard Analysis

Joshua Proudfoot	Good Company Solar Glare: Hazard Analysis

8.3.2 Agricultural Resources

Nick Larkin	Senior Project Manager RECON Environmental, Inc. Land Evaluation and Site Assessment Analysis
Development Management Group, Inc.	Economic Impact Analysis, Employment Impact Analysis, and Fiscal Impact Analysis Statement for Urban Decay

8.3.3 Air Quality

Jessica Fleming	Senior Environmental Specialist RECON Environmental, Inc. Air Quality Analysis

8.3.4 Biological Resources

Wendy Loeffer	Environmental Project Director, Biology RECON Environmental, Inc. Biological Resources Report
Andrew Smisek	Biologist RECON Environmental, Inc. Biological Resources Report; Jurisdictional Waters/ Wetlands Delineation Report
Brenna Ogg	Senior Biologist RECON Environmental, Inc. Results of 2018 Burrowing Owl Habitat Assessment and Breeding Season Surveys; Results of the 2018-2019 Burrowing Owl Non-Breeding Season Surveys

8.3.5 Geology and Soils

Gene Custenborder	Senior Engineering Geologist NV5 West, Inc. Preliminary Geotechnical Investigation Report
Carlos Amante	Director of Geotechnical Services NV5 West, Inc. Preliminary Geotechnical Investigation Report
Carl Henderson	CQA Group Direction NV5 West, Inc. Preliminary Geotechnical Investigation Report

8.3.6 Greenhouse Gases

Jessica Fleming	Senior Environmental Specialist RECON Environmental, Inc. Greenhouse Gas Analysis

8.3.7 Hazards and Hazardous Materials

Eric Clark	Professional Engineer Stantec Consulting Services Hazard Consequences Analysis Report
Steven K. Williams	Senior Engineering Geologist GS Lyon Consultants, Inc. Phase I Environmental Site Assessment Report

8.3.8 Hydrology and Water Quality

Burns & McDonnell	Preliminary Drainage Study

8.3.9 Utilities

Dubose Design Group	Water Supply Assessment

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