

CHAPTER 4.0 CUMULATIVE ANALYSIS

This section provides an analysis of the potential for cumulative impacts to resources and the degree to which the Proposed Action contributes to those impacts. Cumulative impacts are the incremental combination of impacts from the Proposed Action and closely related past, present, and reasonably foreseeable future projects. Both NEPA and CEQA require the consideration of cumulative impacts for the Proposed Action.

Council on Environmental Quality NEPA Guidelines

The Council on Environmental Quality's (CEQ's) regulations for implementing NEPA defines cumulative effects as the following:

“The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR ~ 1508.7).

In general, the cumulative impacts requirements under NEPA are consistent with the guidance provided under CEQA. This analysis considers the effects of a proposed action on a given resource, ecosystem, and human community, which include the present and future effects added to the effects that have taken place in the past. Such cumulative effects must also be added to effects (past, present, and future) caused by all other actions that affect the same resource.

CEQA Guidelines

According to Section 15130 (b)(1)(A) of the CEQA Guidelines, a list of past, present, and probable future projects producing related or cumulative impacts may be used as the basis of the cumulative impacts analysis. The “list” approach was used for the cumulative impacts discussion in this MND. The scale or geographic scope of related projects varies for each impact category. Also allowed is the use of projections contained in adopted general plans or related planning documents. According to Section 15355 of the CEQA Guidelines, cumulative impacts refer to the following:

“Two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that 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 of time.”

4.1 INTRODUCTION

This section includes a list, for disclosure purposes, of IID’s Major Work Authorizations (MWA) and a list of the closely related past, present, and reasonably foreseeable projects. The MWA projects are described below in subsections 4.1.1 through 4.1.3 and include efforts associated with transmission. These projects are not related to the Proposed Action. A tabulated list and description of potential cumulative projects followed by a discussion of the effects that the projects, taken together, may have on each environmental category of concern, such as traffic, noise, and biology, have been produced. Consistent with the intent of CEQA and NEPA, this discussion is guided by the standards of practicality and reasonableness.

4.1.1 KN/KS 230-kV Line Structures Upgrade Project

The KN/KS project consists of upgrading 41 tubular steel pole structures installed along the 230-kV double-circuit line. The total length of the line is approximately 55 miles from the Midway to Coachella Valley Substation.

4.1.2 Avenue 58 Bank 4 Addition Project

This project consists of installing a new 161/92-kV, 225-MVA autotransformer and changing the existing 161-kV configuration to 161-kV breaker and on-half scheme at Avenue 58. The project will consist of two phases. The Avenue 58 92-kV bus provides interconnection to the Avenue 58 161/92, 125-MVA Bank No. 1 and also interconnects to multiple 92-kV transmission lines that provide the transmission path to various distribution substations in the Coachella Valley service area.

4.1.3 230-kV Midway–Bannister Transmission Line and Midway Substation Addition

This project is Phase 1 of a four-phase long-term program to export renewable energy from Imperial Valley. The project consists of building 8.5 miles of 230-kV transmission line between IID’s Midway Substation and the proposed Bannister Substation, referred to as the “Salton Sea Transmission Line.” The project also includes an expansion/upgrade of the existing IID Midway Substation, and a 3.5-mile-long generator tie to the planned Hudson Ranch Geothermal Facility. The first segment entails installing approximately 65 new transmission structures supporting two 230-kV three-phase electrical circuits.

4.2 METHODOLOGY

4.2.1 NEPA

Types of Effects

The potential impacts from those actions that would have direct, indirect, and cumulative effects were considered for each resource. Effects and impacts as used in this document are synonymous and could be beneficial or detrimental.

Direct effects are those effects which are caused by the action and occur at the same time and place (40 CFR 1508.8(a)). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8(b)).

Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects; even if on balance the agency believes that the effect will be beneficial (40 CFR 1508.8).

Cumulative Impacts

The definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7, of the CEQ Regulations. A cumulative impact is the impact on the environment which results from

the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The impact assessment that follows focuses on the general impacts that could occur as a result of implementing each of the alternatives. The methodology for this assessment conforms with the guidance found in the following sections of the CEQ regulations for implementing NEPA, 40 CFR Section 1502.24: Methodology and Scientific Accuracy, 40 CFR Section 1508.7: Cumulative Impact, and 40 CFR Section 1508.8: Effects.

NEPA states that cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR §1508.7). Under NEPA, both context and intensity are considered. When considering intensity of an effect, “whether the action is related to other actions with individually minor but cumulatively significant impacts,” is taken into account. “Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts” (40 CFR §1508.27[b][7]).

The CEQ regulations require that agencies “rigorously explore and objectively evaluate” the impacts of the alternatives. This section describes the impact assessment methodologies; defines the resources; identifies applicable regulations, plans, and policies/management goals; discusses short- and long-term and cumulative impacts; identifies mitigation and measures to address adverse impacts; and summarizes the unavoidable adverse impacts for each environmental parameter. This section also discusses irreversible and irretrievable commitments of resources, growth-inducing impacts, and short-term versus long-term productivity of the environment.

4.2.2 CEQA

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. Section 15130(b) further states that a cumulative impact discussion should be guided by the standards of practicality and reasonableness.

According to CEQA, incremental effects of an individual project are considerable when viewed in connection with the effects of past projects and the effects of probable future projects (PRC Section 21083[b][2]). “Cumulative impacts” refer to two or more individual effects that, when considered together, are considerable or compound or increase other environmental impacts

(CEQA Guidelines, Section 15355). For purposes of this MND/EA, the Proposed Action would have a significant cumulative effect if the following occurs:

- the cumulative effects of other past, current, and probable future projects without the project are not significant and the project's incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- the cumulative effects of other past, current, and probable future projects without the project are already significant and the project contributes considerably to the effect.

The individual effects may be changes resulting from a single project or a number of separate projects. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts taking place over a period of time. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related reasonably foreseeable projects.

CEQA Guidelines Section 15130(b)(1) provides two methods to analyze cumulative impacts:

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

General Plan Projection Method – A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, that describes or evaluates regional or area-wide conditions contributing to the cumulative impact.

For this MND/EA, the list method suggested in Section 15130(b)(1)(A) is followed. A list of past, present, and reasonably foreseeable future projects that would be expected to produce related or cumulative impacts has been used to determine cumulative effects.

4.2.3 Methodology

The MND/EA analyzes the cumulative impact of the construction and operation of a 230-kV transmission line (referred to as the ID Line) between the Imperial Valley (IV) and Dixieland Substations as well as substation improvements including expansion of the Dixieland Substation

and construction of the proposed Leibert Substation. This proposed transmission line would be located in unincorporated Imperial County, southwest of El Centro, California. The transmission line would involve the installation of 53 monopole structures and a 16-foot-wide maintenance road within a new 140-foot-wide ROW, extending approximately 7 miles through both Federal and nonfederal lands. The Proposed Action would ensure continued electricity transmission capability in the Imperial Valley and increase IID's transmission system reliability through redundancy of transmission pathways. An additional double-circuit 230-kV transmission line between the IV and Dixieland Substations would provide a second interconnection between IID and SDG&E, increasing IID's import/export renewable energy transmission reliability to the IV Substation 230-kV bus.

Determining the cumulative environmental consequences of an action requires delineating the cause-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. This MND/EA evaluated cumulative impacts of the Proposed Action and alternatives for each resource area, using the following steps as outlined in BLM's National Environmental Policy Act Handbook (BLM 2008).

Project Effects in Combination with Past, Present, and Foreseeable Future Projects

The cumulative effects analysis addresses past actions that are closely related either in time or space (i.e., temporally or in geographic proximity) to the Proposed Action; present actions that are ongoing at the same time this EA/MND is being prepared; and reasonably foreseeable future actions, including those for which there are existing decisions, funding, or formal proposals, or which are highly probable based on known opportunities or trends. This is consistent with CEQ Guidance, which states that the magnitude and significance of the environmental consequences of the proposed action should be determined in the context of the cumulative effects of other past, present and future actions. [Considering Cumulative Effects Under the NEPA (CEQ, 1997)].

Geographic Scope of the Cumulative Effects Analysis

For the purposes of this analysis, a geographic scope for each cumulative effects issue was established. The geographic scope is generally based on the natural boundaries of the resource affected, rather than jurisdictional boundaries. It is important to note that the geographic scope is different for each cumulative effects issue. The geographic scope of cumulative effects often extends beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the Proposed Action and alternatives. However, if the Proposed Action and alternatives

were determined to have no direct or indirect effects on a resource, no further cumulative effects analysis is necessary.

Table 4-1 identifies the established geographic scope for each environmental resource. Unless otherwise specified, the resource study areas (RSA) generally consists of the surrounding geographic area 5 miles in each direction, south and west of El Centro, north of the international border with Mexico, and east of Ocotillo. The geographic scope is established because the resources and nature of the area changes beyond it, including the increased agricultural and urban influence to the east and the physical barriers and resource protection differences at the international border between the U.S. and Mexico to the south.

**Table 4-1
Cumulative Geographic Scope**

Environmental Resource	Cumulative Analysis Impact Area	Elements to Consider
Land Use	Resource Study Area (RSA). The RSA generally consists of the surrounding geographic area 5 miles in each direction, south and west of El Centro, north of the international border with Mexico, and east of Ocotillo.	California Desert Conservation Area; Energy Production and Utility Corridors Element; the Yuha Basin; Imperial Valley Natural Community Conservation Plan/Habitat Conservation Plan Yuha ACEC FTHL Management Strategy
Agricultural Resources	RSA as described above	Farmlands of Statewide Importance; Williamson Act Contract Lands
Soils and Geology	RSA as described above	Salton Trough; erosion
Visual Resources	5 or less miles from the Proposed Action	State Scenic Highway Yuha Desert is designated by BLM as Class III inventory. The objective of Class III Inventory is to partially retain the existing character of the landscape.
Biological Resources	RSA as described above and expanded to the entire Yuha FTHL MA for FTHL, the Imperial Valley metapopulation for WBO, and isolated patches of habitat within Imperial County for SWFL and YCR.	FTHL; WBO; SWFL, YCR and other special-status species including migratory bird species,
Noise	RSA as described above	Noise-sensitive receptors
Air Quality	Imperial County Air Pollution Control District; Salton Sea Air Basin	PM ₁₀ ; O ₃ (8-hour)
Hydrology and Water Quality	Salton Sea Transboundary Watershed	Category I (impaired) Watershed under the 1997 California Unified Watershed Assessment
Health and Safety/Hazardous Materials	Salton Sea Transboundary Watershed; Salton Sea Air Basin	Releases, spills, emissions, bacteria; ground surface disturbance that exposes subsurface conditions

Environmental Resource	Cumulative Analysis Impact Area	Elements to Consider
Cultural Resources	The Imperial Valley portion of the Salton Trough	Ground-disturbing activities and the cultural character of the site and its vicinity; any cultural resources, including archaeological (prehistoric and historic), and ethnographic resources
Paleontological Resources	The Imperial Valley portion of the Salton Trough	Ground excavation that disturbs significant fossil resources or geologic formations
Socioeconomic Conditions and Environmental Justice	Region of Influence is two U.S. Census blocks within Imperial County (123.01 – Block Group 1 and 111.00 – Block Group 4)	Disproportionate permanent or temporary impact to low-income minority populations within the U.S. Census block groups near the project site
Transportation and Traffic	I-8; Evan Hewes Highway	Construction traffic – materials and workers; emergency access

Timeframe of the Cumulative Effects Analysis

A timeframe for each cumulative effects issue has been determined. The timeframe is defined as the long-term and short-term duration of the effects anticipated. Long-term could be as long as the longest lasting effect. Timeframes, like geographic scope, can vary by resource.

Each project in a region will have its own implementation schedule, which may or may not coincide or overlap with the construction schedule for the Proposed Action. This is a consideration for short-term impacts from the Proposed Action. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the Proposed Action.

Past actions are projects that have been approved and/or permitted and have either very recently completed construction or have yet to complete construction. Present actions are actions that are ongoing at the time of this analysis. Reasonably foreseeable future actions are those for which there are existing decisions, funding, or formal proposals, or which are highly probable based on known opportunities or trends; however, these are limited to within the designated geographic scope and timeframe. Reasonably foreseeable future actions are not limited to those that are approved or funded. However, this analysis does not speculate about future actions that are merely possible but not highly probable based on information available at the time of this study.

Information on past, present, and reasonably foreseeable future projects, and identified project impacts were gathered at the BLM office in El Centro through review of available environmental

documentation (conducted in May 2010) and coordination with BLM staff. Table 4-2 provides a list of the projects to be considered for cumulative analysis, as current at the time of preparation of this evaluation. This analysis considers whether these additional projects, in combination with the Proposed Action, could result in cumulative effects or impacts that are considerable.

For the purposes of this study, the timeframe considered for cumulative projects includes projects recently approved or completed that are not yet addressed as part of the existing conditions of the area, projects under construction, and projects that are in the environmental review or planning process and for which enough information is available to discern their potential impacts. Projects for which no or insufficient information is known or for which substantial uncertainty exists regarding the project are considered speculative and are not evaluated as part of this cumulative analysis.

Cumulative Effects Issues

The BLM NEPA Handbook (H-1790-1) defines an “issue” as a point of disagreement, debate, or dispute with a proposed action based on some anticipated environmental effect. Preliminary issues are frequently identified during the development of the Proposed Action through internal and external scoping. Additionally, supplemental authorities that provide procedural or substantive responsibilities relevant to the NEPA process may help identify issues for analysis. If the Proposed Action and alternatives have no direct or indirect effects on a resource, a cumulative effects analysis on that resource is not required.

Table 4-2 provides a complete listing of the ongoing, anticipated, or likely effects of these projects that may contribute to cumulative impacts when considered in conjunction with impacts of the Proposed Action, as presented in Section 3 of this MND/EA. This list is comprehensive and conservatively provides projects beyond the area of direct or indirect effects from the Proposed Action.

From this overall comprehensive list, more refined project lists were prepared for each resource issue. Tables 4-3 through 4-13 identify each environmental resource issue and list all relevant projects to be included in the cumulative analysis for the different resource areas. The projects listed have been, are being, or would be required to undergo their own independent environmental review under NEPA or CEQA or both, as applicable.

**Table 4-2
List of Projects Considered for Cumulative Analysis**

Project Name		Description of Project	Size/ Location	Status
Projects Within the Jurisdiction of BLM				
1	“S” Line Upgrade 230-kV Transmission Line Project	The “S” Line route would originate from the IID/San Diego Gas & Electric IV Substation located on BLM lands and terminate at the El Centro Switching Station on Dogwood Road near Villa Road. The project is located in Imperial County. The IID proposed to upgrade about 18 miles of the 230-kV overhead electrical transmission line by installing approximately 285 new double-circuit steel poles (including all existing polymer horizontal insulators) to replace the existing wood poles supporting a single 230-kV circuit. The execution plan is to complete the pole replacement and upgrades in three phases. The “S” Line would be upgraded at distinct locations with an assigned order of importance on the basis of system outages, structural reliability, risk, construction feasibility, and costs.	18 miles of various composed segments I-8, Hwy 86, 10 miles southwest of the City of El Centro, near Liebert and Wixom Roads to the north, and terminating at the El Centro Switching Station on Dogwood Road near Villa Road	End of review December 17, 2009; MND filed with mitigation measures. BLM ROW amended/renewed March 2010.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	The 6,500-acre project site is located on approximately 6,140 acres of Federal land managed by BLM and approximately 360 acres of privately owned land. The proposed Imperial Valley Solar project would generate 750 megawatts of renewable energy. The plant would involve 30,000 SunCatchers using solar-dish technology designed to automatically track the sun and collect and focus solar energy onto a power conversion unit that generates electricity. The project includes a 10.3-mile-long 230-kV transmission line, substation, water pipeline, and access road.	Imperial Valley, 100 miles east of San Diego, 14 miles west of El Centro, and 4 miles east of Ocotillo Wells	The Notice of Availability of the BLM and CEC’s Final Decision was made available on October 12, 2010. In February 2011, Imperial Valley Solar was acquired by AES Solar who is proposing substantial changes to the technology and layout of the solar project.

	Project Name	Description of Project	Size/ Location	Status
3	Sunrise Powerlink Transmission Project (CACA-047658)	This would consist of a transmission line from Imperial County to coastal San Diego County. For the first 36 miles of the Selected Alternative, the 500-kV transmission line will be built on BLM land adjacent to the existing Southwest Powerlink 500-kV line. The Selected Alternative crosses approximately 49 miles of BLM land, approximately 19 miles of Forest Service land, approximately 2 miles of Department of Defense land, and approximately 0.4 mile of state land. The remainder of the line would cross lands in various ownerships, including private and local agencies. SDG&E has stated that it developed the Sunrise Powerlink Transmission Project for three major objectives: (1) to bring renewable energy resources to San Diego County from Imperial County by providing access to remote areas with the potential for significant development of renewable energy sources, (2) to improve electric reliability within the San Diego area by providing additional transmission during peak loading and for the region's growing economy, (3) and to reduce congestion and power supply costs of delivering electricity to ratepayers.	Imperial Valley to Penasquitos; located in the Yuha Basin Area of Critical Habitat in the southwestern portion of Imperial County, 8 to 9 miles southwest of the town of El Centro	Final Environmental Impact Statement (EIS) complete. ROW authorized February 2009.
4	Imperial Solar Energy Center – West (CACA-51644)	Imperial Solar Energy Center – West consists of two primary components: (1) the construction and operation of the 250-MW Imperial Solar Energy Center West solar energy facility and (2) the construction and operation of the electrical transmission lines that would connect from the solar facility to the existing IV Substation. The electricity generation process associated with the Proposed Action would use solar technology to convert sunlight directly into electricity. As part of the project, the solar facility would interconnect to the utility grid at the 230-kV side of the IV Substation via an approximately 5-mile-long transmission line. The proposed ROW for the electrical transmission line corridor would be 120 feet wide.	Follows the proposed Dixieland alignment; map in reference document	Draft plan for development complete January 25, 2010. NEPA/CEQA analysis ongoing.

Project Name		Description of Project	Size/ Location	Status
		The development of the solar energy center is on 1,103 acres of vacant land previously used for agricultural purposes. The project would include a facility consisting of a ground-mounted photovoltaic solar power-generating system, supporting structures, operations and maintenance building, substation, water treatment facility, plant control system, meteorological station, and roads and fencing.		
5	Imperial Solar Energy Center – South (CACA-51645)	The Imperial Solar Energy Center – South consists of three primary components: (1) the construction and operation of the 200-MW Imperial Solar Energy Center South solar energy facility, (2) the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing IV Substation, and (3) the widening of an existing access road for ingress and egress to the solar facility across Federal and private lands located along the west side of the Westside Main Canal. The electricity generation process associated with the Proposed Action would use solar technology to convert sunlight into electricity. As part of the project, the facility would interconnect to the utility grid at the 230-kV side of the IV Substation via an approximately 5-mile-long transmission line. The proposed ROW for the electrical transmission line corridor would be 120 feet wide. The project proponent is also requesting construction and operational access to the solar energy facility via use of an existing dirt road located along the west side of the Westside Main Canal, located within BLM and private lands.	The site of the proposed solar energy facility is located on 946.6 gross acres of privately owned undeveloped and agricultural lands in the unincorporated Mt. Signal area of the County of Imperial, approximately 8 miles southwest of the City of El Centro and south of the community of Seeley. The proposed transmission lines and access road would be located within the Yuha Desert and within BLM’s Utility Corridor “N” of the California Desert Conservation Area Plan. Imperial County is located in Southern California, bordering Mexico, west of Arizona and east of San Diego County.	Draft Plan of Development complete January 25, 2010. NEPA/CEQA analysis ongoing.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	SDG&E-proposed photovoltaic solar field. Would produce 12 to 14 MW of renewable energy.	Located on approximately 100 acres of Federal land directly adjacent to SDG&E’s IV Substation	Application submitted for transportation and utility systems. SDG&E submitted a draft Plan of Development as of December 2010. NEPA analysis has not yet commenced.

Project Name		Description of Project	Size/ Location	Status
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Southwest Transmission Partners double-circuit 500-kV line coming in from the east. The project would provide high-voltage transmission capacity in the southwestern U.S. to facilitate the development and interconnection of renewable energy. The total ROW would be approximately 1,903 acres of BLM land and the project will be approximately 75 miles long.	Between North Gila Substation in Yuma County, Arizona, and the IV Substation in Imperial County between North Gila Substation in Yuma County, Arizona, and the IV Substation in Imperial Valley; project will follow the same route as existing Southwest Powerlink 500-kV line	Southwest Transmission Partners is preparing a Plan of Development. NEPA analysis has not yet commenced. Draft plan for development dated November 2010.
8	Centinela Solar Power, LLC (CACA-052092)	Proposed 230-kV line that would generate 225 to 275 MW of electricity on 2,054 acres of previously disturbed private farm land in the Imperial Valley. Approximately 5 miles of new 230-kV transmission line would connect a solar farm on private land with the IV Substation.	Follows the 230-kv lines from the international border going north; approximately 10 to 12 miles southwest of the town of El Centro, Imperial County; map in reference document	Draft Plan of Development dated November 2010. NEPA analysis has not yet commenced.
9	Mount Signal Solar Farm (CACA-052325)	Proposed 82-kV line (follows the 230kv lines from the international border going north alignment). The project would create 200 MW of electricity on 1,375 acres of private farmland in the Imperial Valley. Proposed transmission line route would parallel existing 230-kV lines and share a transmission line with the C Solar Imperial Valley Energy South project.	Located in 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County; ROW located within BLM lands	NEPA process has not commenced.

	Project Name	Description of Project	Size/ Location	Status
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	<p>The proposed ECO Substation Project will cross approximately 1.5 miles of land managed by BLM. The ECO Substation Project includes construction of a 500/230/138-kV substation in Eastern San Diego County; construction of the Southwest Powerlink (SWPL) loop-in, a short loop-in of the existing SWPL transmission line to the proposed ECO Substation; construction of a 138-kV transmission line, approximately 13.3 miles in length, running between the proposed ECO Substation and the rebuilt Boulevard Substation; and rebuilding of the existing Boulevard Substation.</p>	<p>Situated approximately 0.5 mile north of the United States/Mexico border and 0.5 mile west of the Imperial County border</p>	<p>ECO Substation Tule Wind/Energia Sierra Juarez Gen-Tie Projects: CPUC and BLM developed and signed a Memorandum of Understanding (completed on December 14, 2009) that directed the preparation of a Joint EIR/EIS.</p> <p>The Joint Draft EIR/EIS was released for public review on December 24, 2010, for a 54-day public review period originally ending February 16, 2011. However, the public review comment period of the Draft EIR/EIS was extended to March 4, 2011.</p>
		<p>The proposed Tule Wind Project, consisting of up to 134 wind turbines in the 1.5- to 3.0-MW range, would generate up to 200 MW of electricity.</p>	<p>Located in the McCain Valley in southeastern San Diego County, California</p>	
		<p>As proposed by Energia Sierra Juarez U.S. Transmission, LLC, the ESJ Gen-Tie Project would have the capacity to import up to 1,250 MW of renewable energy generated in northern Baja California, Mexico, to the existing SWPL Transmission Line in southeastern San Diego County, California. The selected route would interconnect with the proposed ECO Substation and would be constructed on three to five 150-foot-tall lattice towers or 170-foot-tall steel monopoles. Only renewable energy would be transmitted via the gen-tie line.</p>	<p>Would extend south from the point of interconnection for about 0.5 mile to the U.S./Mexico international border</p>	

Project Name		Description of Project	Size/ Location	Status
11	Proposed Action – Dixieland Connection to IID Transmission System	Construction of a 230-kilovolt (kV) transmission line (referred to as the ID Line) between the Imperial Valley (IV) and Dixieland Substations and substation improvements to the existing Dixieland Substation, as well as construction of the proposed Leibert Substation.	This proposed transmission line would be located in unincorporated Imperial County, southwest of El Centro, California. The transmission line would be located within a new 140-foot-wide right-of-way (ROW) through both Federal and non-Federal lands.	Application filed and NEPA analysis ongoing.
12	Superstition Solar 1	The Superstition Solar 1 project is a photovoltaic solar energy facility capable of producing 500 MW of electricity on approximately 5,516 acres.	Approximately 5 miles west of Westmorland	Application filed; NEPA process has not commenced.
13	Ocotillo Express (CACA- 051552)	Ocotillo Express, LLC, applied to BLM for a ROW on public lands to construct a wind energy-generation power plant facility approximately 5 miles west of Ocotillo. The Ocotillo Express project is a wind energy project that would produce approximately 750 MW of electricity on approximately 15,000 acres of land. The project would generate 550 MW of wind energy, and includes a substation; administration, maintenance, and operations facilities; transmission; and temporary construction laydown areas.	Ocotillo	The NEPA/CEQA process has begun with scoping for the Draft EIS/EIR. The Federal Register was published on December 13, 2010.
14	SDG&E Southwest Powerlink Line 500kv	This line originally went into service in 1984. The line terminated at a 500/230-kV, 1,120-MVA step-down transformer bank at the Miguel Substation. This key east/west transmission line is routinely loaded to its maximum transfer capability of more than 1,000 MW daily. After market deregulation, more than 8,000 MW of new generation was added in Arizona and connected to the Hassayampa/Palo Verde 500-kV switchyard, the eastern terminus of the Southwest Powerlink. In addition, 800 MW of new generation in Mexico was connected to the Southwest Powerlink at the SDG&E IV Substation, southeast of Miguel. (http://www.elp.com/index/display/article-display/223760/articles/utility-automation-engineering-td/volume-10/issue-2/features/innovative-utilities-honored-with-2004-projects-of-the-year-awards.html)	SDG&E's 500-kV transmission line that runs from Arizona to San Diego along the U.S./Mexico Border	Existing.

Project Name		Description of Project	Size/ Location	Status
15	IV Substation (TermoElectrica US, LLC; CACA 042892)	International Border and Department of Energy (DOE) were NEPA lead for preparation of a joint EA. This involves construction of a 230-kv transmission line from the IV Substation to the international U.S./Mexico border. Requires Presidential Permit for border crossing. BLM prepared an EIS which evaluated air quality impacts across the border.	From the IV Substation to the international U.S./Mexico border	Existing. A FONSI was signed and approved by DOE in December 2001.
16	IV Substation (Baja California Power, Inc., aka, Intergen; CACA 042893)	International Border and DOE were NEPA lead for preparation of a joint EA. Involves construction of a 230-kv transmission line from the IV Substation to the international U.S./Mexico border. Requires Presidential Permit for border crossing. BLM prepared an EIS which evaluated air quality impacts across the border.	From the IV Substation to the international U.S./Mexico border	Existing. Construction of the two natural-gas-fired power plants in Mexico started in 2001 and are complete. The Imperial–Mexicali FEIS was prepared in December 2004.
17	IV Substation (SDGE; CACA 013079)	International Border and Department of Energy were NEPA lead for preparation of a joint EA. Involves construction of the La Rosita 230-kv transmission line from the IV Substation to the international U.S./Mexico border near Mt. Signal.	La Rosita Substation near the Mexicali border	Existing. Construction of the two natural-gas-fired power plants in Mexico started in 2001 and are complete. The Imperial–Mexicali FEIS was prepared in December 2004.
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18	LADWP and OptiSolar Power Plant	This project is anticipated to generate 68 MW of solar energy.	Imperial County, SR-111	Under environmental review.
19	Bethel Solar Hybrid Power Plant	This project is anticipated to generate 49.4 MW of hybrid solar thermal and biomass.	Seeley	Under environmental review.
20	Mt. Signal Solar Power Station	This project is anticipated to generate 49.4 MW of hybrid solar thermal and biomass.	8 miles southwest of El Centro	Under environmental review.
21	Orni 18, LLC Geothermal Power Plant	This would generate 49.9 MW of geothermal energy.	Brawley	

Project Name	Description of Project	Size/ Location	Status	
Existing Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
22	U.S. Naval Air Facility El Centro	The lead agency is the U.S. Navy, El Centro Naval Air Facility U.S. Naval Reservation Target 103 and Parachute Drop Zone. Desert range is used for air-to-ground bombing, rocket firing, strafing, dummy drops, and mobile land target training.	West Mesa	Existing.
23	Recreation Activities	The lead agency is BLM. The area is primarily used for the conservation of the flat-tailed horned lizard (FTHL). Off-highway vehicle (OHV) activity is limited to designated routes of travel only within this area. There are occasional groups that visit this area for trail rides. Approximately 20 to 30 permitted and organized events occur on the Plaster City Open Area and Superstition Mountain Open Area. Many of these events are competitive OHV races involving as many as 100 riders and several hundred spectators. The area is a popular OHV riding area with high visitation during the cool season and on holiday weekends.	West Mesa FTHL Management Area; Superstition Mountain and Plaster City Open Area	Ongoing.
24	Recreation Activities	The lead agency is BLM. The area is primarily used for the conservation of FTHL and archaeological resources. OHV activity is limited to designated routes of travel only within this area. The Juan Bautista De Anza National Historic Trail runs through this area. This region is also rich with paleontological and geological resources. Visitors come to this area to find fossils, explore the area's geology, and enjoy the desert landscape. Some schools and universities visit this region for educational field trips and research.	Yuha Desert ACEC	Ongoing.
25	U.S. Gypsum Mining	The project applicant is U.S. Gypsum Mining. At the existing gypsum plant, the proposal is to expand the active gypsum quarry undergoing environmental review. The gypsum quarry is located 26 miles northwest of the plant located at Plaster City.	Plaster City	Existing; Quarry is undergoing expansion. FEIR released January 2008.
26	California State Prison, Centinela	The lead agency is the California State Prison. Existing prison opened in 1993 and covers 2,000 acres.	2302 Brown Road, Imperial	Existing.

Project Name		Description of Project	Size/ Location	Status
Projects Within the Jurisdiction of Imperial County				
27	Las Aldeas Specific Plan	The project applicant is the Las Aldeas Specific Plan Westshore (Lerno) Development. The Las Aldeas Specific Plan project is a mixed-use project of 2,156 single-family residential units, 84 multi-family residential units, 467 four-plex residential units, 27.95 acres of commercial zoning, 10.79 acres of light manufacturing zoning, 21.78 acres of park, 48.18 acres of retention basin, and 23.09 acres for two school sites.	North of Adams Avenue, east of Austin Road, and west of La Brucheri Road	FEIR was available for public review in February 2009. City of El Centro working on staff report and condition of approval.
28	Linda Vista	The lead agency is the City of El Centro. The Linda Vista project is a mixed-use project consisting of 182 single-family homes and a 6-acre commercial lot.	West side of Clark Road and I-8 and McCabe Road	
29	Desert Village #6	The lead agency is the City of El Centro. The Desert Village Project #6 consists of 95 single-family homes, 260 apartments, and 7.3 acres of commercial.	West of Clark Road between I-8 and Home Road	Approved; granted extension of 2 years for filing final map of subdivision (August 2008).
30	Commons	The lead agency is the City of El Centro. The Commons is a regional shopping center of 780,000 square feet.	East side of Dogwood Avenue between I-8 and Danenberg Drive	FEIS was released for public review March 2006.
31	Imperial Valley Mall	The lead agency is the City of El Centro. The Imperial Valley Mall consists of a regional shopping center of 1,460,000 square feet and 306 single-family houses.	Southeast corner of Dogwood Road and Danenberg Road	
32	Miller Burson	The lead agency is the City of El Centro. The Miller Burson project consists of a 570 single-family residential project.	South of Ross Road and east of Austin Road	Final EIR released for public review November 2008 (SCH # 2006081078).
33	Courtyard Villas	The lead agency is the City of El Centro. The Courtyard Villas is a project consisting of 54 single-family homes.	Northwest of I-8 and Austin Road	EIR in process.
34	Willow Bend (East) & Willow Bend (West)	The lead agency is the City of El Centro. The Willow Bend (East) and Willow Bend (West) is a combined project of 216 single-family homes.	Northeast corner of Clark Road and McCabe Road	
35	Lotus Ranch	Gary McPhetridge is the project applicant. The Lotus Ranch project is a residential project of 616 single-family homes and a 600-student elementary school.	Southwest corner of I-8 and La Brucheri Road	On hold per applicant request (June 2008).
36	Mosaic	The Mosaic project is a residential project of 1,156 single-family units and 2.7 acres of commercial.	South of SR-86 and bisected by Dogwood Ranch	EIR in process.

Project Name		Description of Project	Size/ Location	Status
37	Hallwood/Calexico Place 111 & Casino	The lead agency is the City of Calexico. The Calexico Place 111 and Casino project is a mixed-use project of residential, commercial, and casino.	Southwest corner of SR-111 and Jasper Road	Approved.
38	Calexico Mega Park	The Calexico Mega Park project is a mixed-use project of a commercial and regional shopping center.	Southeast corner of SR-111 and Jasper Road	FEIR released for public review June 2009.
39	County Center II Expansion	The lead agency is Imperial County and the Imperial County Office of Education. The County Center II Expansion project is a mixed-use project of a commercial center, expansion of the Imperial County Office of Education, a Joint-Use Teacher Training and Conference Center, Judicial Center, County Park, Jail Expansion, County Administrative Complex, Public Works Administration, and a County Administration Complex.	Southwest corner of McCabe Road and Clark Road (8th Street in the City of El Centro)	EIR in process.
40	Desert Springs Resort	The project applicants are Rob and Don Preston of the Barone Group. The Desert Springs Resort project is a members-only resort community for motorsports, water sports, and recreational vehicle (RV) enthusiasts with a maximum occupancy of 210 days per year. The resort includes an estimated total of up to 411 water sports lots, 792 recreational vehicle lots, 32 estate lots.	Northwest of the Boley Road and Westmorland Road	EIR in process.
41	Coyote Wells (Wind Zero – Training Facility)	The project applicant is Wind Zero Group, Inc. The project proposes to develop the 944-acre parcel with privately owned law enforcement training and motorsports facilities and commercial establishments along the State Route 98 corridor on land that it purchased in 2007. It is anticipated that full implementation of the Coyote Wells Specific Plan would occur in three phases and span 9 years. Wind Zero proposes to use the additional 600-acre site to build a 6.1-mile-long road course and racetrack country club. Wind Zero was founded in 2006 by former U.S. Navy SEALs with a vision to build a comprehensive training facility to serve law enforcement, military, and public agencies.	Ocotillo/Nomirage Area	Wind Zero Group submitted plans to Imperial County May 2008. FEIR prepared July 2010. Currently under litigation.
42	Granite Carroll Sand and Gravel Mine	The project applicant is Granite Carroll Sand and Gravel Mine. The Granite Carroll Sand and Gravel Mine is a mining operation project.	4 miles northwest of Ocotillo	Approved.

Project Name		Description of Project	Size/ Location	Status
43	Bethel Solar X, Inc.	The Bethel Solar X, Inc., project is a solar-hybrid energy project that would produce approximately 49.4 MW of electricity on approximately 571 acres of land.	Calexico	In process.
44	Energy Solar Source I, LLC	The Energy Solar Source I project is a solar energy project that would produce 80 MW of electricity on approximately 480 acres of land.	Niland	In process.
45	Energy Solar Source II, LLC	The Energy Solar Source II project is a solar energy project that would produce 80 MW of electricity on 480 acres of land.	Niland	County of Imperial just received.
46	Salton Sea Solar Farm I	The Salton Sea Solar Farm I project is a solar energy project that would produce approximately 49.9 MW of electricity on approximately 320 acres of land.	Calipatria	County of Imperial just received.
47	Salton Sea Solar Farm II	The Salton Sea Solar Farm II project is a solar energy project that would produce approximately 100 MW of electricity on approximately 623 acres of land.	Calipatria	County of Imperial just received.
48	Calipat Solar Farm I	The Calipat Solar Farm I project is a solar energy project that would produce approximately 50 MW of electricity on approximately 280 acres of land.	Calipatria	County of Imperial just received.
49	Calipat Solar Farm II	The Calipat Solar Farm II project is a solar energy project that would produce approximately 50 MW of electricity on approximately 280 acres of land.	Calipatria	County of Imperial just received.
50	Midway Solar Farm I	The Midway Solar Farm I project is a solar photovoltaic project that would produce approximately 50 MW of electricity on approximately 326 acres of land.	Calipatria	County of Imperial just received.
51	Midway Solar Farm II	The Midway Solar Farm II project is a solar photovoltaic energy project that would produce approximately 155 MW of electricity on approximately 803 acres of land.	Calipatria	County of Imperial just received.
52	IV Solar Company	The IV Solar Company project is a solar photovoltaic energy project that would produce approximately 23 MW of electricity on approximately 123 acres of land.	Niland	Approved by County of Imperial.
53	Chocolate Mountain	The project applicant is 8minutenergy Renewables, LLC. The Chocolate Mountain project is a solar photovoltaic energy project that would produce approximately 49.9 MW of electricity on approximately 320 acres of land.	Niland	Approved by County of Imperial

Project Name		Description of Project	Size/ Location	Status
54	Hudson Ranch II	The project applicant is HR Power II. The Hudson Ranch II project is a geothermal energy project that would produce approximately 49.9 MW of electricity on approximately 326.26 acres of land.	Niland	MND in process.
55	Black Rock Unit # 1 2 3	The project applicant is Calenergy. Black Rock Unit # 1 2 3 project is a geothermal energy project that would produce approximately 159 MW of electricity on approximately 160 acres of land.	Niland	EIR in process.
56	Ram Power/Overlay	The project applicant is Ram Power Corp. Ram Power Overlay is a geothermal energy project that would produce approximately 50 MW of electricity on approximately 27,875 acres of land.	Brawley	EIR in process.
57	Orni 19	The project applicant is Ormat. Orni 19 is a geothermal energy project that would produce approximately 49.9 MW of electricity on approximately 32 acres of land.	Brawley	Existing.
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58	Atlas Storage Facility	The project applicant is Atlas Storage Centers and the project would be an RV storage facility related to the new water well on a 5.3-acre parcel of currently vacant land.	Ocotillo Townsite/Imperial Highway	
59	Mixed-Use Development	The project applicants are the Michael H. Gale/The Kennedy Group and the project would consist of 65 single-family lots on more than 36 acres.	Southeast corner of 8th Street (Clark Road) about 630 feet south of Horne Road	MND proposal being reviewed by applicant.
60	Mixed-Use Development	The project applicant is Colace Brothers Industrial Park and the project would consist of a 15-parcel subdivision on APN 054-280-024 and 054-280-048.	1002 East Evan Hewes Highway	Approved by City of El Centro, March 2008.
61	Pedestrian Fence 225 and Pedestrian Fence 70	The lead agency is the U.S. Department of Homeland Security. The tactical infrastructure project plans to construct approximately 225 miles of primary pedestrian fencing along the southwest border of the United States.	Along the U.S./Mexico Border	Under construction.

	Project Name	Description of Project	Size/ Location	Status
62	Seeley Wastewater Treatment Plant Upgrade	Seeley County Water District is the lead agency. The IVS project applicant would finance an upgrade to the existing facility to allow it to meet the Title 22 water quality standards.	New River Boulevard, Seeley, California	Engineering plans required, completion of project expected. Included as Appendix E in the Imperial Valley Solar Project FEIS.

4.3 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analysis focuses on (1) those resources substantially impacted by the Proposed Action or (2) resources currently in poor or declining health or at risk even if the project impacts are relatively small. Resources impacted by the Proposed Action are land use (Section 3.1), agricultural resources (Section 3.2), soils and geology (Section 3.3), visual resources (Section 3.4), biological resources (Section 3.5), noise (Section 3.6), air quality (Section 3.7), hydrology and water quality (Section 3.8), health and safety/hazardous materials (Section 3.9), cultural resources (Section 3.10), paleontological resources (Section 3.11), socioeconomic conditions and environmental justice (Section 3.12), traffic and circulation (Section 3.13), recreation (Section 3.14), and special designations (3.15). The following discussion addresses the potential for cumulative effects for each of the environmental resource issues in consideration of the cumulative projects listed above. No impacts to environmental justice were identified in association with the Proposed Action, the Route 1 Alternative, the Route 2 Alternative, the No Action Alternative, the Reduced Liebert Substation Alternative, and the No Liebert Substation Alternative; thus, no cumulative analysis of that issue is warranted.

4.3.1 Proposed Project Cumulative Impact Analysis

Land Use

Geographic Scope and Timeframe

Table 4-3 lists the projects considered for the land use cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to land use is presented in Table 4-3. The geographic scope for the analysis of cumulative impacts related to land use is lands within the RSA.

Direct and Indirect Effects

The Proposed Action would have direct effects on land use if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects within the planned life of applicable adopted planning documentation or in geographic areas addressed in those documents removed from the Proposed Action site.

**Table 4-3
List of Projects Considered for Land Use Resources Cumulative Impact Analysis**

	Project Name	Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The S-line upgrade replaces existing poles and lines and would not result in impacts to land use.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>The 6,500-acre project site consists of approximately 6,140 acres of Federal land administered by BLM and 360 acres of private land subject to Imperial County jurisdiction.</p> <p>This project required a Land Use Plan Amendment and it was done when they signed the Record of Decision (ROD). The Land Use Amendment changed the designation from Class L to Class I to allow for Solar Development</p>
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<p>Would extend for 150 miles and traverse numerous government jurisdictions and land use types.</p> <p>This included a Land Use Plan Amendment to the Eastern San Diego Management Plan.</p>
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by IID and others for access to the Westside Main Canal in the area.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	Located on approximately 100 acres of Federal land directly adjacent to SDG&E’s IV Substation.

Project Name		Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Located on approximately 2,067 acres of privately owned agricultural land in the western portion of Imperial County near the IV Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north.
9	Mount Signal Solar Farm	Yes	--	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. ROW is located within BLM lands.
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	Highway 8 is to the south of the plant, which is located in the Yuha Desert. To the north is the El Centro Naval Reservation. To the west is the community of Ocotillo and the Coyote Mountains. To the east are the communities of Seeley, Imperial, and Heber, and the City of El Centro, as well as the Sunbeam Recreation Area and El Centro Naval Auxiliary Air Station. Land uses surrounding the

Project Name		Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
				<p>quarry consist mostly of public lands. To the south of the Quarry are the Fish Creek Mountains Wilderness Area and the Anza Borrego Desert State Park. To the north are Fish Creek and the Anza Borrego Desert State Park. To the west are the Anza Borrego Desert State Park and the County of San Diego. To the east is the Fish Creek Mountains Wilderness Area.</p> <p>The plant site totals approximately 473 acres, with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM.</p>
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	<p>No significant land use impacts due to the following:</p> <p>The project site is located within an unincorporated area of southwestern Imperial County and is predominately surrounded by agriculture and vacant lands. Therefore, the project would not divide an established community, as no development exists within or in the surrounding area of the site. With approval of the General Plan Amendment, the proposed project would be compatible and consistent with the land use designations of the</p>

Project Name		Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
				<p>Specific Plan. With approval of the Change of Zone, the proposed project would be compatible and consistent with the zoning of the project site.</p> <p>The proposed project is designed to preserve the BLM area that surrounds the site and be consistent with the California Desert Conservation Area Plan, Flat-tailed Horned Lizard Rangelwide Management Strategy, and Western Colorado Desert Routes of Travel Designations.</p>
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	Project site is within the California Desert Conservation Area Plan (CDCA Plan) Multiple-Use Class L (Limited Use).
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time	N/A

Project Name		Included in Land Use Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Land Use Cumulative Impact Analysis?	Impacts to Land Use
			this evaluation was prepared.	
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	No	The proposed upgrades would occur entirely within the boundaries of the existing SWWRF; they would not physically divide an established community, nor conflict with any land use plans or policies.	N/A

The Proposed Action consists of constructing approximately 53 new utility poles and associated maintenance road along approximately 7 miles extending from the existing IV Substation to the Dixieland Substation. The new Liebert Substation would be constructed approximately 400 feet north of the IV Substation and a new transformer would be installed at the Dixieland Substation. The pole route is along the west edge of an existing agricultural area and would not be located within or along the boundary of any existing residential or community uses.

The CDCA shows the project site as located within an Energy Production and Utility Corridor (Figure 3.1-2) that runs north from the International Boundary adjacent to the west side of the IID Westside Main Canal to the north side of I-8 and west to the Imperial County line. Currently, the IID Imperial Valley and Dixieland substations are located within this designated corridor, as is a transmission line of steel lattice towers that extends from south of the International Boundary to I-8 and west to San Diego County.

The CDCA designates the Yuha Basin as an ACEC and BLM has designated the area south of I-8 as a Flat-tailed Horned Lizard (FTHL) Management Area (FTHLIC 2003). During surveys conducted by AECOM in June 2009, a single individual FTHL was identified within the study area for the Proposed Action route; FTHL scat was also identified in several locations. As addressed in Section 3.5 of this MND/EA, project impacts to FTHL and other sensitive

biological resources would occur during construction and operation of the proposed facilities, primarily along the transmission line corridor south of I-8. In addition to the FTHL, potential impacts were also identified to burrowing owls and other sensitive wildlife species, and to potential jurisdictional wetlands and other waters of the U.S. and state. Mitigation measures to reduce all project biological resource impacts to less than significant are included in Section 3.5.

The Proposed Action is located within the geographic boundaries of the Imperial Valley NCCP/HCP, which is ongoing and not yet completed. Because the plan and any requirements associated with the plan are still being developed and are not adopted, no conflicts with an applicable NCCP/HCP would result from implementation of the Proposed Action.

The Proposed Action would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources, measures BIO-C and BIO-D, would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, the Proposed Action's incremental cumulative impact would be minimal and mitigated. The Proposed Action would not otherwise result in direct or indirect cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

The Proposed Action would have a significant impact, pursuant to CEQA, involving land use if the project would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural communities' conservation plan.

As detailed in Section 3.1, the Proposed Action would be generally consistent with all applicable land use laws and regulations applicable to lands within Imperial County, including within BLM-administered lands. The Proposed Action would not divide an existing community. The Proposed Action would not require any change in land use designations. No change of land use plans or

policies would be required to implement the project, and the alignment of the proposed power poles and substation would be within a utility corridor designated by BLM. The Proposed Action would not result in any conflicts with an applicable NCCP/HCP, because the Imperial Valley NCCP/HCP and any requirements associated with the plan are still being developed and are not adopted. However, biological resource impacts within the FTHL Management Area would be reduced to less than significant under CEQA, by implementation of the mitigation measures provided in Section 3.5 Biological Resources, measures BIO-C and BIO-D. For these reasons, the Proposed Action would not contribute considerably to an incremental cumulative land use impacts under CEQA.

Agriculture

Geographic Scope and Timeframe

Table 4-4 lists the projects considered for the agriculture cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to agriculture is presented in Table 4-4. While effects to agricultural lands is a county-wide issue the Proposed Action will have only nominal, and generally temporary, effect to agriculture, which would not result in the loss of agricultural production. As a result, the geographic scope for the analysis of cumulative impacts related to agriculture is lands within the RSA.

Direct and Indirect Effects

The Proposed Action would have direct effects on agriculture if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

The Proposed Action would not permanently change the existing land use or Williamson Act contract within the proposed transmission line ROW and would result in no further direct or indirect effects. Direct adverse effects associated with placement of the transmission line poles and the maintenance road would occur to approximately 2.49 acres of Farmlands of Local Importance. However, these adverse effects only disturb a relatively small area off federal lands and would allow the continuation of farming operations around the facilities proposed. While these impacts are adverse, they are not substantial due to the relatively small area of disturbance and the ability for farming operations to continue around the facilities proposed. Therefore, the Proposed Action would not have direct or indirect cumulative impacts with regards to agriculture under NEPA.

Table 4-4
List of Projects Considered for Agricultural Resources Cumulative Impact Analysis

	Project Name	Included in the Agricultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources Cumulative Impact Analysis?	Impacts to Agricultural Resources
1	"S" Line Upgrade 230-kV Transmission Line Project	No	Approximately zero	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	1,931
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	36.2
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	1,048.4
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	820.7
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The project site is not located on agricultural land.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	N/A
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Agricultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources Cumulative Impact Analysis?	Impacts to Agricultural Resources
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	Permanent: 2.49 Temporary: 8.11
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	No	The project site is not located on agricultural land.	N/A
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Agricultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources Cumulative Impact Analysis?	Impacts to Agricultural Resources
40	Desert Springs Resort	Yes	--	539
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	No	The project site not located on agricultural land.	N/A
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	No	The proposed upgrades would occur entirely within the boundaries of the existing SWWRF; they would not physically divide an established community, nor conflict with any land use plans or policies.	N/A

CEQA Significance Determination

A significant impact related to agricultural resources would occur if implementation of the Proposed Action would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to nonagricultural use.

- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use.

Imperial County has historically supported a variety of agricultural uses. As the region and population grows, demand for housing and other development continues to increase and creates pressure for conversion of farmland to urban uses. It can be expected that, with population growth in the region, this development pressure would contribute to the overall loss of farmland. The combination of several of the cumulative projects as identified in Table 4-4 could result in cumulative impacts to agriculture by removing land from agricultural use and converting it to a developed use.

Agricultural lands are present within the footprint of the Proposed Action, though most of these lands are currently fallow. The permanent locations of poles would not impact existing agricultural operations or reduce availability of agricultural land. Any impacts from construction operations would be temporary only.

As shown in Table 4-4, many projects throughout the region would impact lands currently in agricultural use and remove acreage from agricultural production and preclude that use in the future, resulting in a cumulative loss of farmland. Even though the cumulative loss of farmland is substantial throughout the region, the Proposed Action would only contribute incrementally to this cumulative impact. The Proposed Action would temporarily impact 8.11 acres of farmland. However, IID would restore the work sites to their original condition upon completion of the project. Based on the location and spacing of the poles to be constructed (Figure 2.1-5), no more than 2.49 acres of farmlands (all of which is Farmlands of Local Importance) would be permanently impacted by this alternative from placement of the transmission line poles and the 16-foot-wide maintenance road. As shown in Table 4-4, there are known impacts to more than 4,300 acres of agricultural land in the cumulative study area.

Furthermore, farming operations would be able to continue after implementation of the proposed facilities. No other aspects of this project would impact farmlands. As described, the nature of the Proposed Action would allow for agricultural operations to continue on the lands surrounding the project footprint and would not limit the continued viability of the lands to be used for agricultural purposes. Because the Proposed Action would permanently impact only a small amount of agricultural land and would not preclude the surrounding lands from continued viable

agricultural production, the Proposed Action would not contribute considerably to the potentially cumulative significant impact to agriculture under CEQA.

Soils and Geology

Geographic Scope and Timeframe

Table 4-5 lists the projects considered for the soils and geology cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to soils and geology is presented in Table 4-5. The geographic scope for the analysis of cumulative impacts related to soils and geology is lands within the RSA.

**Table 4-5
List of Projects Considered for Soils and Geology Resources Cumulative Impact Analysis**

	Project Name	Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	Project improved the existing S line resilience to effects from soils and geology conditions.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The 6,500-acre project site consists of approximately 6,140 acres of Federal land administered by BLM and 360 acres of private land subject to Imperial County jurisdiction.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Would extend for 150 miles and traverse numerous government jurisdictions and land use types. The project would not result in significant and unavoidable impacts to geological/soils and mineral resources. Identified impacts of the proposed project would either result in adverse but less than significant impacts and/or significant impacts mitigated to below a level of significance: Would not trigger or accelerate erosion due to construction activities; With mitigation, unique geologic features would not be damaged due to construction activities; With mitigation, the project would not expose people or structures to potential substantial adverse effects as a result of problematic soils; With mitigation, the project would not

Project Name		Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
				<p>expose people or structures to potential adverse effects as a result of ground shaking and/or ground failure; With mitigation, the project would not expose people or structures to potential substantial adverse effects as a result of surface fault rupture at crossings or active faults; With mitigation, the project would not expose people or structures to substantial adverse effects as a result of slope instability created during excavation and/or grading; and With mitigation, the project would not expose people or structures to substantial adverse effects as a result of landslides, earthflows, debris flows, and/or rockfall.</p>
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses. No significant impacts to geology/soils and minerals would result from the proposed project due to federal, state, and local regulations set up to ensure the minimization or prevention of related impacts. The implementation of mitigation measures would also reduce geology and soil related impacts to less than significant, while no impacts to minerals would result from the implementation of the proposed project.</p>
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	<p>The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by the IID and others for access to the Westside Main Canal in the area. No significant impacts to geology/soils and minerals would result from the proposed project due to federal, state, and local regulations set up to ensure the minimization or prevention of related impacts. The implementation of mitigation measures would also reduce geology and soil related impacts to less than significant, while impacts to minerals would result from the implementation of the proposed project.</p>

Project Name		Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	The SDG&E proposed photovoltaic solar field is located on approximately 100 acres of federal land directly adjacent to SDG&E's Imperial Valley substation. Impacts are currently unknown because BLM is reviewing the project's POD.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	N/A
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	

Project Name		Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
25	U.S. Gypsum Mining	Yes	--	Reclaimed Quarry slopes may be subject to failures and erosion if not properly cut, developed, and stabilized. Mitigation measures have been provided to reduce the impact to less than significant. Further, the project itself is comprised of three components (Quarry, Plant, and pipeline) that are somewhat separated geographically, reducing potential cumulative effects.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	<p>There is a moderate to strong probability that a fault or fault zone transects the general region of the property associated with currently unidentified active faults associated with the southeastern connection of the San Jacinto Fault Zone and other strike slip faults in northern Mexico. A phased fault evaluation is recommended in areas where critical structures are proposed to determine appropriate setbacks. This is considered a significant impact.</p> <p>Implementation of mitigation measures will reduce the impact of faulting and surface rupture on the project site to a level less than significant. Further, the project would conform to UBC Design Requirements. The proposed project would not contribute to a significant cumulative impact to geology and soils relating to seismic events.</p>
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Soils and Geological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Soils and Geological Resources Cumulative Impact Analysis?	Impacts to Soils and Geological Resources
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	Would occupy approximately 123 acres of land.
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Please refer to Table 4-2 for Cumulative Project List	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	No	The construction required for the SWWRF upgrades would occur primarily on Holtville silty clay.	N/A

Direct and Indirect Effects

The Proposed Action would have direct effects to soils and geology if it would cause at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects within geographic areas addressed in those documents removed from the Proposed Action site.

The potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides would be reduced with proper engineering and design of transmission poles and substation components in accordance with all applicable seismic standards. Construction of the Proposed Action would disturb new areas and expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the new and expanded substations; however, soil disturbance would generally occur in small isolated areas and the majority of these areas would be covered in concrete, restored to their original condition, or leveled in such a manner that does not increase erosion potential. The substations would both be located on relatively flat land and would not require substantial earthwork that could induce or accelerate geologic hazards. Therefore, the potential for geologic instability due to the Proposed Action, including off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, would not result in adverse effects. Proper engineering and distance from other structures and human activity would not create a substantial risk to life or property. Additionally, no adverse impact to the capability of the soils to support waste water disposal would occur. Therefore, the Proposed Action would not have direct or indirect cumulative impacts with regards to soil and geology under NEPA.

CEQA Significance Determination

Significant impacts related to soils and geology would occur if implementation of the Proposed Action would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - 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;
 - strong seismic ground shaking;
 - seismic-related ground failure, including liquefaction; or
 - landslides.
- Result in substantial soil erosion or the loss of topsoil.

- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the UBC (2007), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Though geology is a regional issue, with geologic features sometimes spanning very large areas, impacts to soils and geology are typically site-specific and are unaffected by actions not occurring directly on them. The geographic scope for considering cumulative impacts to geology and soils is considered to be the areas immediately adjacent to the project alignment, as any impacts of the Proposed Action would be site-specific. Cumulative projects could individually contribute to creating unstable geologic conditions that might result in conditions such as ground failure, liquefaction, erosion, and other geologic hazards. However, these conditions are typically confined to the general project area and do not have extensive areas of effect. To be cumulatively considerable, project-generated hazards would have to occur in relatively close proximity to other projects, with similar geologic and soil conditions.

The Proposed Action is located throughout an area mostly surrounded by open space and generally not close to structures or areas commonly used by people. Cumulative projects are not anticipated to occur within the areas immediately adjacent to the project alignment or substations. Permanent project disturbance to geology or soils would occur immediately surrounding the substations and pole locations, and along access roads. Project impacts were found to be less than significant and would not extend into areas where the impacts could combine with other development to contribute to a cumulative impact.

In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required by the UBC, CBC, and industry standards. For these reasons, the Proposed Action would not contribute to incremental cumulative geology and soil impacts under CEQA.

Visual Resources*Geographic Scope and Timeframe*

Table 4-6 lists the projects considered for the visual resources cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to visual resources is presented in Table 4-6. The geographic scope for the analysis of cumulative impacts related to visual resources is lands within a 5 (or less)-mile radius of the Proposed Action. Potential visual resources impacts would be short-term during construction activities and long-term during the operation of the Proposed Action until the end of the lease term, at which time the site would be restored to its pre-project condition.

**Table 4-6
List of Projects Considered for Visual Resources Cumulative Impact Analysis**

Project Name		Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	The “S” Line upgrade would install approximately 285 new double-circuit steel poles to replace the existing wood poles supporting a single 230-kV circuit. No significant impact to visual resources would occur because the project would upgrade (i.e., replace) equipment within the existing “S” line transmission corridor.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Permanent visual changes to the desert landscape. Visual impacts of project grading and construction would include a highly industrial scene of assembly and installation of Suncatcher units. In addition, this project will add new sources of glare. This project’s gen-tie line would be located within an existing transmission corridor, adjacent to the Southwest Power link transmission line; therefore, the existing visual character would not be altered.

Project Name		Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	The installation of new 500-kV transmission towers would affect travelers on local roads, recreationists, and local residents. However, this project would be located within an existing transmission corridor, adjacent to the Southwest Power link transmission line. Therefore, the existing visual character would not be significantly altered.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	No significant impact to visual resources due to the following: <ol style="list-style-type: none"> 1. The project site is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. 2. Construction of this project would alter the existing visual character of the area and its surroundings as a result of converting vacant agricultural land to a solar energy facility; however, the project site would not be visible from any designated scenic resources or scenic highways. 3. The proposed transmission line corridor will be located within a designated utility corridor; therefore, the project will not degrade the existing visual character or quality of the site. 4. The project would not create a new source of substantial light or glare.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	No significant impact to visual resources due to the following: <ol style="list-style-type: none"> 1. The project site is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. 2. The proposed transmission line corridor will be located

	Project Name	Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
				<p>within a designated utility corridor; therefore, the project will not degrade the existing visual character or quality of the site.</p> <p>3. The project would not create a new source of substantial light or glare.</p>
6	<p>SDG&E Proposed Photovoltaic Solar Field (CACA-051625)</p>	Yes	--	<p>The SDG&E proposed photovoltaic solar field is located on approximately 100 acres of Federal land directly adjacent to SDG&E's Imperial Valley substation.</p> <p>Impacts are currently unknown because BLM is reviewing the project's POD.</p>
7	<p>North Gila to Imperial Valley #2 Transmission Line (CACA-51575)</p>	No	<p>Potential impacts to land use are unknown at the time of this evaluation.</p>	<p>Visual impacts would be minimized to the extent possible by locating the structures of the new line adjacent to and with the same spacing as existing structures.</p>
8	<p>Centinela Solar Power, LLC (CACA-052092)</p>	Yes	--	<p>The Centinela project proposes approximately 5 miles of new 230-kV lines, which would follow the existing 230-kV lines from the international border going north. As such, no significant impact to visual resources would occur because the project would follow existing 230-kV lines.</p>
9	<p>Mount Signal Solar Farm</p>	Yes	--	<p>The proposed transmission line route would parallel existing 230-kV lines and share C Solar Imperial Valley Energy South project's transmission line. No significant impact to visual resources because the project would follow the existing 230-kV lines.</p>
10	<p>San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects</p>	No	<p>These projects occur outside the scope for cumulative projects for this resource issue.</p>	N/A

	Project Name	Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	<p>The Proposed Action would result in an expansion and extension of existing quarrying activities on the site. There is no intent on the part of USG to use the site for recreational uses. Continued quarrying activities in the canyon would not significantly affect recreational opportunities on adjacent public lands.</p> <p>The Plaster City Plant is an existing industrial facility located at a remote site that is zoned for industrial use. The expansion/modernization of the</p>

	Project Name	Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
				<p>Plant will not alter the existing compatibility of this use.</p> <p>The proposed replacement of the water pipeline would be within the existing ROW and would result in temporary disturbance of the right-of-way as a trench is dug, pipe is laid, and backfilling is completed. Once this is done, the alignment would not affect surrounding land uses.</p> <p>The Proposed Action would not result in any surface disturbance within the Fish Creek Mountains Wilderness Area. Based upon the lack of direct impacts on these wilderness areas as a result of the project, the impacts to these areas will be below a level of significance.</p>
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	<p>The majority of the project site is currently vacant and used for agriculture located within an unincorporated area of southwestern Imperial County and is predominantly surrounded agriculture and vacant lands. Therefore, the project would not divide and established community.</p> <p>The southeastern portion of the proposed project is located within Zone D of the Naval Air Facility El Centro Compatibility Map, and would be considered compatible with the ALUCP. On March 17, 2010, the Airport Land Use Commission determined that the project was consistent with the ALUCP and not a physical impact</p>

Project Name	Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
			<p>on the environment.</p> <p>No significant impact to visual resources because the project site is not located near any scenic vistas or scenic highways. Implementation of the proposed project would not damage or degrade any existing scenic resources. Although the proposed project would change the existing visual character of the site, the site is not located in an area where sensitive viewsheds and visual resources have been identified.</p> <p>The project would result in a minor increase in the cumulative light or glare of the area; however, standard County regulations require the shielding of lights to reduce potential light and glare, and new light from the project would not affect any significant visual resources in the area.</p>
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.
52	IV Solar Company	No	These projects occur outside the scope for cumulative projects for this resource issue.
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)			
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.

Project Name		Included in Visual Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Visual Resources Cumulative Impact Analysis?	Impacts to Visual Resources
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	No	<p>The SWWRF upgrades would occur on the SWWRF site. This site is dedicated to an industrial use and is identified as an urban area by the Imperial County Land Use Plan. No wilderness areas, recreation areas, nor agriculture lands occur on site. No recreational areas are located within 1,000 feet of the project site.</p> <p>The SWWRF upgrades would not impact agricultural or range lands, nor would they impact recreation or wilderness. Because the proposed upgrades would occur entirely within the boundaries of the existing SWWRF, they would not physically divide an established community, nor conflict with any land use plans or policies.</p>	N/A

Direct and Indirect Effects

The Proposed Action would have direct effects on visual resources if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

The Proposed Action’s transmission line poles would primarily affect views to the southeast from travelers eastbound on I-8. However, much of the natural character and scenic quality of the area has been reduced by existing transmission towers, desert lands disturbed by now-fallow agricultural plots, and off-highway vehicle use. Additionally, lighting associated with the Proposed Action currently occurs only at the IV and Dixieland substations and consists of security lighting that is shielded and directed downward.

Cumulative projects listed in Table 4-6 would not impact scenic resources within a state scenic highway as no designated state scenic highway is located within five miles of these cumulative

projects. Existing cumulative projects Imperial Valley Substation, Imperial Valley Rosita Line, Intergen Line, Sempra Line, and Southwest Power Link would not substantially degrade the character of the site or its surroundings. Finally, all projects listed in Table 4-6 would not produce a substantial amount of light and glare, as no significant source of light or glare is proposed, or the project will otherwise comply with the County lighting ordinance. As such, the Proposed Action would not result in cumulative direct or indirect adverse effects to visual resources under NEPA.

CEQA Significance Determination

A significant impact related to visual resources, pursuant to CEQA, would occur if implementation of the Proposed Action would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The list of cumulative projects in Table 4-6 was used for evaluation of potential cumulative visual impacts. The geographic area encompassing the cumulative projects is considered adequate to assess aesthetic impacts, as the visual environment of the area is localized due to relatively flat terrain that does not allow for expansive views of large areas. In this type of setting, the visual change resulting from a new project generally impacts only the surrounding area and does not have regional implications.

Long linear features like transmission lines, highways, and canals can have a substantial effect on the visual qualities of a geographic area, including in an open desert or agricultural environment where prominent structural features detract from natural or pastoral views. The project area contains numerous linear features such as these that are viewable from long distances. Such features can detract from the overall visual quality of the area, especially from the viewpoint of recreationists on nearby public lands, and particularly when multiple linear features are present. As shown in Table 4-6, there are many transmission lines and projects that

require long linear components. Combined, the linear features within the area that extend across open expanses would result in a potentially significant cumulative impact to visual resources, depending on location of visual features, numbers of viewers, designs and mitigation, or design measures implemented to reduce those impacts.

The ID Line would be another of these linear features that contribute to cumulative visual effects in this area. However, the location of the Proposed Action is along a linear demarcation between open desert and agricultural fields. Distant views to Mount Signal and the Sierra de Juarez would not be visually obstructed by the north/south alignment of the transmission line, nor would the easterly location of the transmission line adjacent to farmland result in significant alteration to the rugged and diverse desert landforms in the Yuha Basin to the west of the project site. From medium- and long-range perspectives, the Proposed Action would not contribute to significant adverse change to scenic views, aesthetics resources, or visual character of the area, given the existing level of dissimilar visual conditions and abrupt divide between fallow agricultural lands and desert lands. In addition, the alignment of the Proposed Action is generally through areas with minimal potential for highly sensitive viewers. The alignment passes through areas of fallow agricultural fields and desert lands that do not include a large number of people who would view the project. Additionally, the Proposed Action would be located within an existing transmission line corridor occupied by transmission towers and lines; therefore, birdwatchers, fisherman, tourists, and others would not be impacted due to additional visual obstructions. Only the portion of I-8 between the San Diego County line and SR-98 is classified as eligible for designation as a State Scenic Highway and is a minimum of approximately 14 miles west of the project site. Therefore, no impact to a State Scenic Highway would result from the Proposed Action. The alignment does not parallel substantial transportation corridors that would afford views to a large number of motorists. Similar lighting that is shielded and directed downward would be installed at the proposed Liebert Substation, which is in close proximity to the IV Substation. Construction activities for the Proposed Action would only occur during daylight hours. Though there are many cumulative projects that are altering the visual environment of the region, the Proposed Action would not contribute considerably to a significant cumulative impact under CEQA on visual resources because of its location in remote areas with minimal viewers.

Biological Resources*Geographic Scope and Timeframe*

Table 4-7 lists the projects considered for the biological resources cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to biological resources is presented in Table 4-7. The geographic scope for the analysis of cumulative impacts related to biological resources varies between the special-status species, but in general, consists of those species' metapopulations within the Imperial Valley. For the FTHL, the geographical scope of the cumulative impact analysis encompasses the Yuha Desert metapopulation. The geographic scope for the analysis of cumulative impacts related to burrowing owl is lands within the Imperial Valley metapopulation. For MOPL, the cumulative analysis encompasses the species' overwintering range within the Imperial Valley. There are also two species which occur within the Imperial Valley, but are restricted to isolated patches of habitat within the broader geographical extent of the valley. The geographic scope for the analysis of cumulative effects on SWFL would be the distribution of migration stopover and foraging habitat for the species within the Imperial Valley. Additionally, the resident Yuma clapper rail would have a geographical scope of the Imperial Valley, but are only associated with the isolated patches of emergent vegetation typically associated with the valley's irrigation drains and canals.

**Table 4-7
List of Projects Considered for Biological Resources Cumulative Impact Analysis**

Project Name		Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	Impacts to the burrowing owl, Yuma clapper rail, and FTHL. Mitigation reduces impacts to less than significant. For 18 miles of transmission line, there are approximately 108 acres of disturbance. Approximately 2.15 acres is on BLM lands and the rest is on private land. Approximately 2.15 acres are within the FTHL MA within existing ROW.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Biological resources impact to approximately 92.8 acres of Sonoran creosote bush scrub. Compensatory mitigation for approximately 6,619.9 acres of FTHL suitable habitat. Loss of approximately 165 acres of waters of the U.S. and 840 acres of CDFG jurisdictional streambeds.

	Project Name	Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
				<p>Approximately 6,000 acres of FTHL suitable habitat. Loss of approximately 165 acres of waters of the U.S. and approximately 312 acres of CDFG jurisdictional streambeds. Approximately 92.8 acres are within the FTHL MA. Conversion of approximately 6,500 acres of land – mitigation is required. Approximately 6,375.76 acres of BLM land.</p>
3	<p>Sunrise Powerlink Transmission Project (CACA-047658)</p>	Yes	--	<p>During construction, the project would temporarily disturb approximately 982 acres of sensitive vegetation (353 acres of non-sensitive vegetation) and would permanently impact approximately 441 acres of sensitive vegetation (48 acres of non-sensitive vegetation).</p> <p>During operation, the project would cause permanent (displacement of vegetation with project features such as towers or permanent access roads) impacts to vegetation communities. In total, the project would permanently impact approximately 441 acres of sensitive vegetation (48 acres of non-sensitive vegetation).</p> <p>46.4 acres of impacts to FTHL within the MA.</p>
4	<p>Imperial Solar Energy Center-West (CACA-51644)</p>	Yes	--	<p>Proposed ROW lies within the Yuha Basin ACEC and in the Yuha Desert MA for FTHL. Construction of the solar energy facility and the transmission line would result in permanent impacts to approximately 1,078 acres of vegetation communities. Construction of the solar energy facility and the transmission line would result in temporary impacts to 6.9 acres on vegetation communities. The total project impacts to vegetation communities (permanent and temporary) are 1,085 acres. Impacts to 13.7 acres of BLM land al within the Yuha FTHL MA.</p>
5	<p>Imperial Solar Energy Center – South (CACA-51645)</p>	Yes	--	<p>The project plans a 120-foot-wide ROW from the project site along BLM land to the IV Substation to accommodate the transmission corridor. The transmission line ROW corridor within BLM lands comprises approximately 82.7 acres. The Imperial Solar Energy Center-South Project</p>

	Project Name	Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
				would permanently impact up to 2.8 acres and temporarily impact up to 7.3 acres, for a total of 10.1 acres of FTHL habitat within the MA.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes		Impacts to biological resources have yet to be assessed fully. It is to be approximately 115 acres and would be entirely within the Yuha FTHL MA.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Yes	--	3 acres of impacts within the Yuha FTHL are anticipated to result from this project.
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Lies in the Yuha Basin ACEC in the Yuha Desert MA for FTHL. Approximately 6 permanent acres of impact; approximately 32 temporary acres of impact. Impacts to non-wetland jurisdictional waters. Total approximate ROW acreage is 80 acres of BLM land. Approximately 32 acres of BLM lands disturbed temporarily and 6 acres of permanent disturbance. 25 acres of impacts to Yuha MA have been identified for this project.
9	Mount Signal Solar Farm	Yes	--	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for FTHL and Western burrowing owl (impacts will be mitigated).
10	San Diego Gas & Electric (SDG&E) East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

	Project Name	Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	Yes	These projects include ongoing use for recreation activities by the public for activities such as OHV play, racing, trail riding, and camping.	Recreation can result in injury or death of individual animals, impacts to foraging habitat, disturbances to nesting or breeding habitat, and interruptions of natural movements and interactions of wildlife.
25	U.S. Gypsum Mining	Yes	--	Highway 8 is to the south of the plant, which is located in the Yuha Desert. To the north is the El Centro Naval Reservation. To the west is the community of Ocotillo and the Coyote Mountains. To the east are the communities of Seeley, Imperial, and Heber, and the City of El Centro, as well as the Sunbeam Recreation Area and El Centro Naval Auxiliary Air Station. Land uses surrounding the Quarry consist mostly of public lands. To the south of the Quarry are the Fish Creek Mountains Wilderness Area and the Anza Borrego Desert State Park. To the north are Fish Creek and the Anza Borrego Desert State Park. To the west are the Anza Borrego Desert State Park and the County of San Diego. To the east is the Fish Creek Mountains

Project Name	Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
			Wilderness Area. The plant site totals approximately 473 acres, with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions. N/A
Projects Within the Jurisdiction of Imperial County			
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
40	Desert Springs Resort	Yes	-- The proposed project is designed to preserve the BLM area that surrounds the site and be consistent with the California Desert Conservation Area Plan, Flat-tailed Horned Lizard Rangewide Management Strategy, and Western Colorado Desert Routes of Travel Designations.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
52	IV Solar Company	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared. N/A
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A

	Project Name	Included in Biological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Biological Resources Cumulative Impact Analysis?	Impacts to Biological Resources
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	The SWWRF site includes only developed/disturbed lands. The hydrolic study determined no sensitive species would be affected. It was also found that adequate supply of water would remain to maintain the wetland. However, mitigation measures were provided to reduce impacts to jurisdictional water bodies and bird species that would reduce impacts to less than significant.

Cumulative Effects

The Proposed Action would have direct effects (loss of foraging habitat, nest failure or disturbance to a breeding population) on biological resources if it would cause effects at the time of construction, maintenance or operation and within the area of proposed development. The Proposed Action would have indirect effects (such as population density, or growth rate, genetic diversity, or competition for foraging, if the project causes reasonably foreseeable impacts.

Cumulative impacts. Cumulative impacts refer to two or more individual effects either indirect or direct which, when considered together, are considerable or which compound or increase other environmental impacts.

- a. The individual effects may be changes resulting from a single project or a number of 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 probable future projects.

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

This MND/EA analyzes both construction and operations impacts to biological resources associated with the Proposed Action and alternatives. Effects of each project are discussed for the 140-foot ROW and 1,000-foot survey buffer areas.

Permanent direct impacts would occur from construction within each of the project areas, including permanent direct losses to native habitats, potential jurisdictional waters, and sensitive species. Specifically, direct impacts may include injury, death, and/or harassment of listed and/or sensitive species. Direct impacts may also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Direct impacts to plants can include crushing of adult plants, bulbs, or seeds. Potential direct impacts to non-listed sensitive species, including migratory birds covered under the Migratory Bird Treaty Act (MBTA), would occur from direct removal of occupied habitat.

Potential indirect impacts may occur to biological resources adjacent to the sites. The 140-foot ROW and 1,000-foot survey buffer areas assessed for the Proposed Action and alternatives are evaluated in this section to determine what types of indirect impacts may result from project construction.

Examples of indirect impacts to biological resources include the following:

- *Habitat Fragmentation:* Fragmented, smaller areas of habitat usually contain fewer species, have proportionally larger perimeters (making them more vulnerable to edge effects), are more likely to be biologically isolated from other habitat areas, and tend to be more vulnerable to adverse stochastic events.
- *Edge Effects:* The biological integrity of habitats adjoining development can be diminished by the effects of noise, lighting, exotic plant and animal invasion, dust/air pollution, predators, parasites, disturbance from human activities (i.e., trampling of species from recreational activity), pesticides, fuel modification, and other factors. Numerous predators such as snakes, opossums, raccoons, skunks, ground squirrels, and various corvids utilize edges for dispersal and foraging.
- *Noise:* Higher ambient noise levels often result from development (construction and operation), which can adversely affect species that rely on sound to communicate

(e.g., birds, frogs). The impact of noise on wildlife likely differs from species to species and is dependent on the source of the noise and the decibel level, duration, and timing.

- *Changes in Hydrology:* Changes in hydrology, runoff, and sedimentation could indirectly affect surface-water-dependent species. Increased runoff into native habitat and channelization for flood control could result in increased erosion and rates of scouring, which could result in downstream habitat loss for some species. Changes in hydrology could also affect the plant and seed base for various small mammals, birds, insects, and other species, which rely on annual grass, forbs, and other plants for survival.
- *Exotic Species:* Nonnative plant and animal species have few natural predators or other ecological controls on their population sizes, and they often thrive in disturbed habitats. Nonnative species may aggressively outcompete native species or otherwise harm sensitive species; e.g., exotic plant species, such as giant reed, can rapidly invade native habitat areas and alter water flow and/or quantities as well as vegetation diversity and/or composition. Additionally, construction and maintenance vehicles are possible weed and exotic species dispersal mechanisms, as they travel from more weedy areas (outside project site) into previously undisturbed and non-weedy locations inside the project site. This may occur both during and after construction.
- *Lighting:* Artificial night lighting could affect the habitat value for some species, particularly for nocturnal species, through potential modification of predation rates, obscuring of lunar cycles, and/or causing direct habitat avoidance.
- *Fugitive Dust:* Construction-generated fugitive dust can adversely affect plants by reducing the rates of metabolic processes such as photosynthesis and respiration.
- *Alteration of Fire Regimes:* Alteration of the natural fire regime could lead to an increase in fire frequency and/or intensity from anthropogenic ignition.
- *Increased Predation Rates:* Raptor, corvid, and shrike species use transmission poles as perches for hunting, especially in areas where trees or other perching locations are sparse. Therefore, new poles in previously undisturbed desert habitat create new perches for hunting and foraging. This may increase the predation rates on various reptiles, small mammals, and birds.
- *Avian Collision and Electrocution:* Migrating birds may collide with structures that were formerly not on the landscape or unavoidable during strong wind conditions. Additionally, birds perching on transmission poles and wires are in danger of electrocution.

- *Other effect:* Changes in population density, or population growth or failure rate, genetic diversity, or competition for foraging

Plants

Construction of the Proposed Action has the potential to impact special-status plants. Thurber's pilostyles was detected as a parasitic plant on indigo bush at two locations within the BRSA. Two of these sites were located within the buffer area of the Proposed Action and Route Alternative 1, and one site was located within the footprint of the existing Imperial Valley Substation (common to all alternatives). Indigo bush is only present in some small stands, mostly in remnant desert wash habitats. Ten host plants were observed to have Thurber's pilostyles, fewer than half of the indigo bushes that were observed. Ribbed cryptantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Proposed Action alignment. The CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very endangered" in California, Mitigation Measure BIO-A would be required.

The host plant of Thurber's pilostyles, indigo bush (*Psoralea emoryi*) is generally uncommon throughout the entire BRSA and as indicated is only present in some small stands that had been previously cultivated at the site where it occurs in the Right of Way of the Proposed Action, Alternative 1 and near two tower sites. The remnant desert wash habitat where it occurs, though fallow is still under an agricultural land use. Potential impacts from the Proposed Action may directly impact these host plants by tower and road construction, clearing native vegetation or crushing by vehicles. The desert wash substrate in this area is very sandy, not prone to creating dust as it does nearby in cultivated areas. The temporary nature of this construction activity and its succeeding maintenance would not be expected to significantly alter this soil create fine dust that could cover or in some way hinder either the host plant or that of Thurber's pilostyles.

Thurber's pilostyles at the existing Imperial Valley Substation occurs in the buffer area at a corner of the facility, outside the chain-link fence where a small stand of its host plant occurs possibly enhanced by rain run-off from the facility. Associated desert vegetation is otherwise intact outside of the facility with the exception of several dirt road tracks that meander through the area surrounding the IV Substation. Potential impacts from the proposed project may directly

impact these host plants by clearing native vegetation or crushing by vehicles. The desert substrate in this area is very sandy and in spite of the use of these dirt roads no significant dust appears on the native vegetation. Construction of the Proposed Liebert facility may constitute a dust vector that could impact the host plant and or its ability to support Thurber's pilostyles. However, if dust abatement is undertaken by spraying water an additional potential impact which would be more likely would be the encouragement of weed species, of most concern is Sarah mustard.

Ribbed cryptantha (*Cryptantha costata*) occurs throughout the southern portion of the area of Proposed Action on BLM lands where both temporary and permanent maintenance roads and laydown areas are to occur. The establishment of permanent roads for the construction and maintenance of the project will directly affect the Ribbed cryptantha by permanently removal some of the habitat that currently exists for Ribbed cryptantha. As indicated drifting sand is the preferred habitat for Ribbed cryptantha. Drifting sand from upwind with the prevailing northwest air flow would not be expected to be diminished; therefore this potential indirect effect is not expected. Furthermore, soil disturbance that would ensue from the grading, maintenance and use of these roads would constitute an indirect effect by creating temporary and permanent refuge for weed invasion. Also any water used to control dust during construction would constitute an indirect temporary effect by enhancing the weed vector of Sarah mustard which is presently common throughout the natural vegetation of the BRSA, often occupying disturbed areas as well as the drifting and sandy areas.

Weed control along the power line corridor would be considered a long term cumulative benefit to the two sensitive plant species Pilostyles thurberi and Ribbed cryptantha that were identified during the survey and to the natural plant communities in particular the riparian habitats that occur in the project Right of Way.

BUOW

Potentially significant direct and indirect impacts to BUOW could result from construction and operation/maintenance of the Proposed Action. Transmission line construction project and operations related impacts to burrowing owls could range from vehicular traffic strikes, disturbance and burrow filling or excavation. A recent study, Manning and Kaler, 2010, "Effects of Survey Methods on Burrowing Owls", documented the effects pedestrians displacing owls during wildlife surveys. This study conducted in agricultural areas in Imperial County

demonstrated that human activity can cause burrowing owls to be flushed from perches or burrows. Burrowing owls could be inadvertently crushed or struck by equipment. In addition, passive relocation and blocking of burrows within the project site may lead to mortality or low breeding success.

The Proposed Action changes to the environment in combination with the development of several other energy related project activities and transmission lines in the vicinity of the IV substation will affect the burrowing owl metapopulation in Imperial County. Individual burrowing owls may abandon habitat, leave home ranges and become more susceptible to prey species or elements. Translocated owls would potentially be affected by reduced forage and increased conspecific competition for resources both burrowing sites and forage. Human disturbance during the breeding season can also decrease productivity and survivorship by disrupting normal behavior and physiology of nesting birds (Knight and Cole, 1991). Increased parental activity caused by human presence attracts predators and increases nest predation rates (Martin et al. 2000). Because predation risk increases as a predator approaches, breeding birds exhibit stronger responses to humans at closer distances (Beale and Monaghan 2004).

The success of the Imperial Valley burrowing owl metapopulation is important to the recovery and viability of the burrowing owl population in California. The burrowing owls has adapted and persisted in the Sonoran desert region of southern California due to the areas unique attributes, low human population and its ability to forage in agricultural areas. These agricultural areas across the burrowing owls range have become increasingly important for conservation and management of this species.

Energy generation or transmission related project indirect impacts could also include: adverse changes in population density, eradication of this segment of the population, decline in population growth rate, lower genetic diversity or isolation of populations, or increased competition for foraging causing population declines or stress related adverse health of the population. Other impacts possible are:

- 1) the long term loss of foraging habitat includes loss of food, special resources, preferred burrow locations, and nesting sites.
- 2) Natural movements and adjustments to home ranges may be disrupted by multiple construction activities taking place over time in a concentrated area.

- 3) Habitat fragmentation may result in populations or individual burrowing owls isolated by the combination of projects and the distribution of agriculture fields in the area of concentrated solar development.

The scale and scope of this project in addition to or compared with the renewable energy projects proposed within this power generation and transmission corridor is very small and is predictable such that it would not result in increased effects overtime. The project specific effects would not significantly alter or influence the impacts overall to this species or metapopulation of birds.

FTHL

Direct and indirect impacts to FTHL-occupied habitat would occur due to the Proposed Action running through the Yuha Desert Management Area. A significant portion of the Proposed Action runs through FTHL MA and would require mitigation. As indicated in Table 3.5-3, 266.03 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. Mitigation measures BIO-C and BIO-D will be.

With respect to FTHL, impacts to FTHL within the Yuha Management Area would fall well within the 1% impact allowance set forth in the FTHLRMS to limit cumulative impacts within the MA. Existing disturbance within the MA currently totals approximately 180.01 acres. Of the approximately 602 acres that is the 1% cap, approximately 421.9 acres remain. The cumulative projects as described in Table 4-7 combined would reduce the available acreage within the 1% cap by approximately 328.15 acres, to leave approximately 92.75 acres. The Proposed Action would further reduce the available 1% cap within the MA by approximately 41.32 acres to leave approximately 52.4 acres. As projects in the Yuha MA are evolving and engineering designs become more refine these numbers may fluctuate. Because the FTHLRMS provides for an acceptable amount of impact to habitat within the MA and the project plus cumulative projects do not exceed that limit, no significant cumulative impact would result. For these reasons, implementation of the Proposed Action would have incremental impacts on biological resources in this area, but those impacts would not be cumulatively considerable with the implementation of the mitigation identified for project impacts.

The scale and scope of this project in addition to or in combination with the renewable energy projects proposed within this power generation and transmission corridor is very small. The project specific effects would not significantly alter or influence the impacts overall to this species or management area.

Mountain Plover

The Proposed Action alignment would not result in impacts to the plover. The native Yuha Desert does not support mountain plover which prefer active agricultural fields. The absence of the MOPL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to MOPL from construction and operation/maintenance of the Proposed Action. As such, the Proposed Action would not contribute to cumulative effects to the MOPL.

Southwestern Willow Flycatcher

Suitable SWFL foraging habitat exists around the Proposed Action alignment; however, no SWFL were detected within the 1,000-foot survey buffer around Proposed Action. The habitat identified as suitable for migrating willow flycatchers within the alignment for the Proposed Action consists of patchy mesquite thickets and tamarisk with varying density. These habitats (2.46 acres of mesquite thickets and tamarisk) are located approximately 0.70 mile south of the existing Dixieland Substation, extending to approximately 1.15 mile south. Southwestern willow flycatchers are migrants, arriving on their breeding grounds in mid-May to early June (Garrett and Dunn 1981; Unitt 2004). The absence of nesting habitat and SWFL from within the 1,000-foot buffer would indicate that the project would not have direct or indirect impacts to nesting SWFL. However direct and indirect impacts to SWFL foraging habitat would occur from construction or operation/maintenance of the Proposed Action. Therefore, construction or operation/maintenance of the Proposed Action would occur outside of not only SWFL breeding season, but also during north and south bound migrations generally occurring between early May and mid-October. Potential cumulative impacts to SWFL foraging could be minimized through scheduling of project activities to avoid, to the extent feasible, the peak migratory periods for the species.

Yuma Clapper Rail

The Proposed Action alignment would not result in impacts to the Yuma clapper rail (*Rallus longirostris yumanensis*: YCR). YCR breeds in heavily-vegetated fresh-water marshes with cover ranging from moderately dense stands of *Typha domingensis* (cattail) and *Scirpus* spp. (bulrush) along the Colorado River (Smith, 1975; Anderson and Ohmart, 1985) to dense, nearmonotypic stands of *Typha* at the Salton Sea (Bennett and Ohmart, 1978). The nearest location of YCR is approximately 3 miles east of the Proposed Action alignment, located west of Drew Road, and south of Interstate 8, known as Fig Lagoon. The absence of suitable breeding or

foraging habitat for YCR within the Proposed Action and the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to YCR from construction and operation/maintenance. As such, the Proposed Action would not contribute to cumulative effects on the YCR. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

Loggerhead shrikes detected within the project vicinity may be permanently directly impacted through the loss of breeding habitat. Permanent direct impacts would occur to any nesting special-status bird species during vegetation clearing and removal; indirect impacts could occur through increased construction noise during the nesting season, operational night lighting, and other edge effects. Cumulative impacts to loggerhead shrikes and other nesting bird species would occur, and therefore the Proposed Action would contribute to minor, incremental cumulative impacts to these species. However, the Proposed Action is relatively small, and the associated effects would not be cumulatively considerable. No permanent direct or indirect impacts to Gila woodpecker would occur because the private residence and suitable habitat does not occur within the 140-foot ROW for the Proposed Action and, therefore, the Proposed Action would not contribute to cumulative effects on the Gila woodpecker.

Indirect impacts to other special-status bird species would occur from implementation of the Proposed Action. Transmission line poles tend to attract birds, including those protected under the MBTA, that use elevated structures for perching and/or nesting. There is also a potential for bird strikes associated with the transmission poles and lines. The Proposed Action has the potential to cumulatively impact migratory or special-status bird species, such as the California brown pelican (*Pelecanus occidentalis californicus*) and golden eagle (*Aquila chrysaetos*), by incrementally increasing the bird strike and electrocution hazards in the Imperial Valley. As practicable, the project would be constructed during months outside of the typical nesting period for birds in this area and would not affect nesting birds. Additionally, an Avian and Bat Protection Plan (ABPP) is being developed and will be approved by USFWS for the Proposed Action. Implementation of Mitigation Measure BIO-E is required. The ABPP will include measures to avoid, minimize, and mitigate impacts associated with bird strikes and electrocution. Through implementation of the ABPP, the residual cumulative effects of the Proposed Action from bird strikes and electrocution of bird species within the Imperial Valley region would not be cumulatively considerable.

Habitats

The Proposed Action intersects sensitive vegetation communities (Table 3.5-4) that are associated with wetland features (Figure 3.5-7). These vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement.

Vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. There is a potential to adversely impact desert dry wash woodland within at least two washes that traverse the Proposed Action. This is a potentially significant impact and mitigation is required. Indirect impacts, both permanent and temporary, include an increase in fugitive dust, which reduces plant photosynthetic capacity; a potential increase in fire frequency; introduction of exotic and invasive species; and potential changes in hydrology. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement; measure BIO-F would be required.

Implementation of the Proposed Action has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. As shown in Figure 2.1-5, the poles have been located outside of the waters of the U.S. However, to provide the access road, IID may be required to secure a permit from USACE to perform construction work within these areas. If a permit is required, implementation of permit conditions would be required to address impacts to these areas; measure BIO-G would be required.

As described above, the Proposed Action has the potential to result in direct and indirect biological resources impacts. As with the Proposed Action, each of the cumulative projects listed in Table 4-7 would be required to provide mitigation for impacts to biological resources, mitigation measures BIO-A through BIO-G, as identified in Section 3.5. As such, the Proposed Action would not result in direct or indirect adverse effects to biological resources under NEPA.

CEQA Significance Determination

Impacts would be considered significant, pursuant to CEQA, if the project would do the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or the U.S. Fish and Wildlife Service (USFWS).
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.

The geographic scope for considering cumulative biological impacts cannot be defined by jurisdictional or other political boundaries, as sensitive habitats and species can have widespread ranges and can vary for individual species. For this reason, the biological cumulative impact analysis includes RSA, as discussed in Table 4-1.

No special-status plant species were detected during the survey. However, two plant species included on the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants List 4.3 as “Limited distribution (Watch List). Not very endangered in California” were detected. Thurber’s pilostyles (*Pilostyles thurberi*) and ribbed cryptantha (*Cryptantha costata*); their locations are depicted on Figure 3.5-2. (CNPS 2011).

As discussed above potentially significant direct and indirect impacts to BUOW could result from construction and operations/maintenance of the Proposed Action if BUOW were to occupy burrows prior to implementation of the project. Per the CBOC protocol preconstruction surveys will be conducted prior to any ground-disturbing activities. The entire project footprint will be walked and surveyed for BUOW. Suitable habitat within 150 meters of the ROW will also be surveyed. Active burrows will be flagged. If any BUOW are detected during preconstruction surveys, BIO-B will be implemented to reduce the potential impacts to a less-than-significant level.

As described above, permanent direct impacts to FTHL-occupied habitat would occur because the alignment of the Proposed Action runs through the Yuha Desert Management Area. Permanent impacts include direct take of FTHL habitat through construction of the Proposed Action and loss of FTHL habitat through creation of the new ROW access road and transmission pole foundations and the potential to kill FTHL while driving on those roads (Figure 3.5-5). Since a significant portion of the Proposed Action runs through a FTHL Management Area (MA; 41.32 acres), this is a potentially significant impact and mitigation would be required. Potentially significant indirect impacts to FTHL would occur from implementation of the Proposed Action. BIO-C and BIO-D would be implemented to reduce the magnitude of these impacts to less than significant.

No direct or indirect adverse impacts are anticipated to occur because MOPL were not detected on this preferred route nor for the adjacent C-Solar West project site. The absence of appropriate habitat (active agricultural fields) for the MOPL from within the 1,000-foot buffer would indicate that the project would not have direct or indirect adverse impact MOPL from either construction or operation/maintenance of the Proposed Action. Therefore, no species specific mitigation measures would be required.

The absence of the SWFL from within the 1,000-foot buffer indicates that the project would not have significant direct or indirect impacts to SWFL from construction and operation/maintenance of the Proposed Action. Therefore, no species specific mitigation measures would be required.

Permanent direct impacts would occur to any nesting special-status bird species during vegetation clearing and removal. Direct impacts to loggerhead shrikes and other nesting bird species would be potentially significant, and mitigation would be required. Impacts to Gila woodpeckers are considered less than significant and would be further reduced by implementation of other typical mitigation actions that address air quality and noise. Potentially

significant indirect impacts to other special-status bird species would occur from implementation of the Proposed Action. Transmission line poles tend to attract birds, including those protected under the MBTA, that use elevated structures for perching and/or nesting. As currently proposed, the Proposed Action would be constructed during the fall and winter months outside of the typical nesting period for birds in this area and would not affect nesting birds. An Avian Protection Plan is being developed and will be approved by USFWS for the Proposed Action. Bio-E is provided to reduce the impacts to less than significant.

Vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. There is a potential to adversely impact desert dry wash woodland within at least two washes that traverse the Proposed Action. Indirect impacts, both permanent and temporary, include an increase in fugitive dust, which reduces plant photosynthetic capacity; a potential increase in fire frequency; introduction of exotic and invasive species; and potential changes in hydrology. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement. This is a potentially significant impact and BIO-F is required.

Implementation of the Proposed Action has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. If a permit is required, implementation of permit conditions would be required to address impacts to these areas. This is a potentially significant impact and BIO-G would be required.

For these reasons, implementation of the Proposed Action would have incremental impacts on biological resources in this area, but those impacts would not be cumulatively considerable under CEQA with the implementation of the mitigation identified for project impacts.

Noise

Geographic Scope and Timeframe

Table 4-8 lists the projects considered for the noise cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to noise is presented in Table 4-8. The geographic scope for the analysis of cumulative impacts related to noise is lands

within the RSA. Noise is a local rather than regional issue, and, thus, the use of the cumulative project list is appropriate for cumulative noise analysis.

**Table 4-8
List of Projects Considered for Noise Cumulative Impact Analysis**

Project Name		Included in the Noise Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Noise Cumulative Impact Analysis?	Impacts to Noise
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The S-line upgrade replaces existing poles and lines and would not result in new noise impacts. Construction could not overlap with the Proposed Action as at least one of the lines must be operational to maintain power supply in the area.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Aggregate construction noise may be expected to reach levels as high as 67 dBA Leq at the nearest sensitive receptor, the residences at Painted Gorge Road, for a period of approximately 4 months; an increase of 18 dBA during daytime hours. Because the maximum construction noise would be temporary and limited to daytime hours, the noise impacts due to construction activity are not substantial. However, mitigation measures were provided during construction. The primary noise sources during operation of the IVS project would be the reciprocating Stirling Engines (including generator, cooling fan and air compressor) on the SunCatchers, the step-up transformers, and the new on-site substation. power plant noise levels are predicted to be less than 52 dBA CNEL (45 dBA Leq) at all sensitive receptors during daytime operation of the IVS project. No change in ambient noise at any sensitive receptor at night would result from plant operation.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Maximum instantaneous construction noise levels would range from 80 to 90 dBA at 50 feet from any work site. This means that construction noise at 200 feet from work could range up to 78 dBA, and that beyond 1,000 feet levels would not exceed 70 dBA. Helicopters would be used in areas where access is limited.

Project Name		Included in the Noise Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Noise Cumulative Impact Analysis?	Impacts to Noise
				<p>Helicopters would generate noise levels of 89 dBA to 99 dBA at 50 feet. Mitigation has been provided to ensure impacts are less than significant during construction.</p> <p>Corona discharge associated with high-voltage power transmission is heard near an energized line as a crackling or hissing sound. SDG&E estimates this noise to be about 50 dBA for a 500 kV line during wet weather near the ROW edge and under 40 dBA near the ROW edge for the overhead 230 kV transmission lines. The proposed 500 kV line would cause no more than 45 dBA Leq at the edge of ROW during any daytime or nighttime hour. Mitigation has been provided to ensure impacts are less than significant during operation.</p>
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The nearest sensitive receptor is the Imperial Lakes planned water skiing community located approximately 0.5 miles north of project site. The area of the project is otherwise not located in close proximity of other types of sensitive land uses, including residential structures. The resulting average daily construction noise level would vary between 43 and 48 dBA Leq-h or less at any sensitive receptor area.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	Noise associated with construction equipment would not exceed the 75 dB Leq threshold identified in the County of Imperial Noise Element; thus would not be deemed impactful or disturbing to potential adjacent sensitive receptors.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in the Noise Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Noise Cumulative Impact Analysis?	Impacts to Noise
8	Centinela Solar Power, LLC (CACA-052092)	No	1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	N/A
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in the Noise Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Noise Cumulative Impact Analysis?	Impacts to Noise
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	Noise impacts would not be significant largely because of the distance between the Quarry expansion activities and off-site receptors and because the operations at the Quarry will not significantly change after implementation of the project. Potential off-site noise impacts would not be significant largely because of the distance between the Plant and any sensitive receptors. The project impact related to construction and operation noises were determined to be less than significant.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	Implementation of the project would introduce additional vehicular traffic noise. Consequently, this would increase noise along roadways adjacent to residences east of the site approximately 180 feet away from the proposed project. Mitigation measures have been provided to reduce the impact to less than significant.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Noise Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Noise Cumulative Impact Analysis?	Impacts to Noise
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	Construction for the IVS project would still result in a temporary noise impact. Aggregate construction noise may be expected to reach levels as high as 67 dBA Leq at the nearest sensitive receptor, the residences at Painted Gorge Road, for a period of approximately 4 months, with an increase of 18 dBA during daytime hours. Mitigation measures have been provided to reduce impact to less-than-significant levels.
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	No	The proposed upgrades would occur entirely within the boundaries of the existing SWWRF.	N/A

Direct and Indirect Effects

The Proposed Action would have direct effects on noise if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

There are no noise-sensitive receptors located in proximity to the proposed construction areas that would experience construction noise levels exceeding the County Noise Ordinance limits. The nearest structures are located more than 1,000 feet from proposed construction activities. Therefore, any structures in proximity to the project site are at sufficient distances that any

project vibrations would not be perceptible. Thus, the FTA-recommended vibration standard and threshold of architectural damage for conventional structures would not be exceeded. Additionally, construction noise levels would naturally attenuate with distance to not exceed the allowable construction noise level limits under the Imperial County Noise Ordinance at the nearest residence during daytime activities. The Proposed Action would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the hum of the transmission lines. As such, the Proposed Action would not result in direct or indirect adverse effects to noise under NEPA.

CEQA Significance Determination

CEQA requires that significant environmental impacts be identified, and that such impacts be eliminated or mitigated to the extent feasible. Section XI of Appendix G of the CEQA Guidelines sets forth characteristics that may signify a potentially significant impact; the characteristics applicable to the proposed project are listed below. A significant impact related to noise would occur if implementation of the Proposed Action would result in the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards (laws, ordinances, regulations, or standards [LORS]) of other agencies;
- Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Noise due to construction activities is usually considered to be less than significant in terms of CEQA compliance if the following occurs:

- Construction activity is temporary,
- Use of heavy equipment and noisy activities is limited to daytime hours, and
- All feasible noise abatement measures are implemented for noise-producing equipment.

The Proposed Action site is remotely located with no noise-sensitive receptors in proximity to the sites to be affected by project construction and/or operational noise. The proposed facilities would temporarily contribute to ambient noise levels during construction. Construction equipment could generate noise levels up to 85 dBA L_{eq} at 50 feet from the center of the each work area. However, construction noise levels would naturally attenuate with distance to not exceed the allowable construction noise level limits under the Imperial County Noise.

Operational noise would be negligible. Because of the lack of sensitive noise receptors in the area and the fact that cumulative projects are not close enough to one another to add to the noise environment, any changes to the noise environment would be minor. Project noise during operation would occur to a minimal degree and would be associated primarily with the low-frequency hum of transmission lines during wet or humid weather. Transmission line noise decreases quickly with distance away from the line.

Cumulative projects are not located within the immediate vicinity of the Proposed Action site and would be outside of the geographic scope of the consideration of cumulative noise impacts. Given the sparsely developed nature of the corridor and geographic scope of this cumulative analysis, few sensitive noise receptors in the area, and the distance between the Proposed Action and other cumulative projects that precludes noise from combining, cumulative noise impacts are considered less than significant. Therefore, construction (short-term) and operational (long-term) noise generated by the Proposed Action would not contribute to cumulative noise impacts because the projects are spaced far enough apart that the noise generated by one project will not substantially combine with the noise of another project.

Air Quality

Geographic Scope and Timeframe

Table 4-9 lists the projects considered for the air quality cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to air quality is presented in Table 4-9. The geographic scope for the analysis of cumulative impacts related to air

quality is lands within the Imperial County Air Pollution Control District and the Salton Sea Air Basin.

Table 4-9
List of Projects Considered for Air Quality Cumulative Impact Analysis

Project Name		Included in the Air Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Air Quality Cumulative Impact Analysis?	Impacts to Air Quality
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The S Line upgrade replaces existing poles and lines and would not result in additional air emissions. Construction could not overlap with the Proposed Action, as at least one of the lines must be operational to maintain power supply in the area.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Construction emissions of the project were determined to be below the General Conformity Rule applicability thresholds for the Federal nonattainment pollutants at the project site, PM10 and O3. Operation of the IVS project is not predicted to cause new exceedances of the Federal AAQs for attainment pollutants
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Construction activities would exceed the federal General Conformity <i>de minimis</i> thresholds for NOx and particulate matter in Imperial County and for NOx in San Diego County. Mitigation measures were provided for construction impacts.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by the IID and others for access to the Westside Main Canal in the area.

Project Name		Included in the Air Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Air Quality Cumulative Impact Analysis?	Impacts to Air Quality
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	Located on approximately 100 acres of Federal land directly adjacent to SDG&E's IV Substation. Additional project specific information is needed.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	N/A
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is outside of the SSAB.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

	Project Name	Included in the Air Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Air Quality Cumulative Impact Analysis?	Impacts to Air Quality
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	Quarry air emissions associated with the post-project increased for all criteria pollutants except for PM10. The increases for the criteria pollutants other than PM10 are directly related to the increased hours of mobile equipment in the quarrying and hauling of gypsum. None of these increases are greater than the ICAPCD established CEQA significance thresholds of 25 tons/year. The project's design features, permit conditions and ICAPCD Rules limit emissions.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Air Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Air Quality Cumulative Impact Analysis?	Impacts to Air Quality
40	Desert Springs Resort	Yes	--	The project would result in generating fugitive dust and PM10 during construction activities. The project would also result in the production of aggregate operational Exceedances of CO, NOx, and ROG. Mitigation measures are provided to reduce the impact to less than significant.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	The IV Solar project includes measures that would reduce the project's stationary source NOx, VOC, SO2, PM10, and PM2.5 emissions through the use of Best Available Control Technology (BACT), minimizing delivery and employee trips, and reducing mobile source emissions by using lower emitting gasoline- and propane-fueled new vehicles. With the inclusion of these measures and compliance with the ICAPCD measures provided later in this section, the IV Solar project would not result in adverse air quality impacts.
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Air Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Air Quality Cumulative Impact Analysis?	Impacts to Air Quality
62	Seeley Wastewater Treatment Plant Upgrade	No	The proposed upgrades would occur entirely within the boundaries of the existing SWWRF; they would not physically divide an established community, nor conflict with any land use plans or policies.	N/A

Cumulative Effects

The Proposed Action would have direct effects on air quality if it would cause effects at the time of implementation and within the local and regional area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

Operation of the Proposed Action would generate negligible emissions because the primary source of operational emissions would be from maintenance vehicles used by workers to patrol the transmission line routes to visually inspect for damages and thus, would not conflict with or obstruct the applicable air quality plan. The majority of the project’s air pollutants would be generated during construction activities and daily construction emissions would be below the ICAPCD thresholds. Implementation of BCMPs and adherence to ICAPCD Regulation VIII, Fugitive Dust, would further reduce fugitive dust emissions. Further, most of the proposed construction is in remote and rural areas , i.e., not in proximity and would not affect air quality sensitive receptors with high concentrations of localized pollutants.

In addition, to criteria pollutant emissions, the project would generate GHG emissions associated with construction activities, and negligible GHG emissions during project operation. Total project GHG emissions would be approximately 988 tons, which converts to approximately 896 metric tons of CO₂ equivalent (CO₂e). The total modeled construction-related GHG emissions of approximately 896 metric tons of CO₂e associated with the proposed project, amortized over the project life span (30 years) is approximately 29 metric tons of CO₂e per year. When compared to the CAPCOA threshold (900 metric tons of CO₂e per year), the annual project GHG emissions do not exceed the CAPCOA threshold.

As such, the Proposed Action would result in minor direct and indirect adverse effects to air quality, however, these effects would be temporary and short-term (for the duration of project construction).

CEQA Significance Determination

State CEQA Guidelines state that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would cause a violation of an ambient air quality standard or worsen an existing violation; contribute substantially to an existing or projected air quality violation; expose sensitive receptors to substantial pollutant concentrations; or conflict with adopted environmental plans, policies, or regulations for air pollutants.

The significance of air quality impacts, pursuant to CEQA, associated with the implementation of the proposed project was determined by answering the following questions:

- Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?
- Would the proposed project violate any air quality standards or contribute substantially to an existing or projected air quality violation?
- Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as nonattainment under an applicable Federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
- Would the proposed project expose sensitive receptors to substantial pollutant concentrations?
- Would the proposed project create objectionable odors that would affect a substantial amount of people?

Construction activities would result in criteria pollutant emissions from site grading activities, construction of foundation, installation of power poles, and vehicle and construction equipment exhaust. Proposed project operation would result in negligible amount of air pollutant emissions from maintenance vehicles.

Currently, no air district in California, including ICAPCD, has identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to GHG emissions. The state has identified 1990 emission levels as a goal through adoption of Assembly Bill (AB) 32. To meet this goal, California would need to generate lower levels of GHG emissions than current levels. However, no standards have yet been adopted quantifying 1990 emission targets. It is recognized that for most projects there is no simple metric available to determine if a single project would help or hinder meeting the AB 32 emission goals.

Consumption of fossil fuels in the transportation sector accounted for over 40 percent of the total GHG emissions in California in 2004. Current standards for reducing vehicle emissions considered under AB 1493 call for “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles,” and do not provide a quantified target for GHG emissions reductions for vehicles.

Emitting CO₂ into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO₂ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project’s incremental contribution of CO₂ into the atmosphere, it is typically not possible to determine whether or how an individual project’s relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of CO₂ emitted by the project would result in any altered conditions.

For this analysis, the project’s GHG emissions and its incremental contribution to global climate change would be considered significant if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The Proposed Action is in Imperial County, California. Imperial County is located within the SSAB. For the purposes of air quality, the SSAB is the defined RSA. The SSAB consists of the

western portion of Riverside County known as Coachella Valley and all of Imperial County. As discussed in Section 3.6, implementation of the Proposed Action would create short-term air quality impacts that would be considered less than significant.

The Proposed Action and other cumulative projects as listed below in Table 4-9 would add to exhaust emissions and particulates during construction periods. As indicated in Table 3.7-6, daily construction emissions are well below the ICAPCD significance thresholds for construction activities. Further, annual emissions are well below the GCR *de minimis* level for the SSAB; therefore, the Proposed Action is considered exempt from performing a comprehensive General Conformity Analysis and Determination, and would be considered to conform to the SIP. As new construction of cumulative project would be staggered over time and not occur all at once, dust and other emissions would be dispersed in time and location. However, each of these cumulative projects is required to comply with specific regulatory requirements that are meant to minimize construction impacts on air quality, and mitigation would be required to reduce air quality emissions to below threshold levels. Although construction emissions will not cause significant air quality impact, implementation of BCMPs, as listed in Section 3.7, and adherence to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. For these reasons, construction activities associated with this project, combined with the projects listed in Table 4-9, would not result in a significant short-term cumulative impact to air quality under CEQA.

Operational impacts generally tend to have a greater effect on cumulative conditions. However, very minimal pollutant-emitting operational activities are anticipated for this Proposed Action. The Proposed Action would contribute little to local air quality pollution, especially in relation to large emission sources such as industries and vehicle traffic on highways. Long-term operation of the Proposed Action and other transmission projects would generate almost no direct emissions of air pollutants. Particulate generation from disturbed soils may continue until construction areas are revegetated. As provided in Section 3.7, there would be very little in the form of additive air quality effects resulting from the Proposed Action. As shown in Table 4-9, the majority of projects considered for cumulative air quality analysis are also transmission or solar energy projects. These cumulative projects would also generate minimal operational air quality emissions, as described for the Proposed Action. There are no other substantial industrial or trip-generating cumulative projects that would create large quantities of air quality emissions throughout the life of the project. Therefore, the Proposed Action during project operation would not result in a considerable contribution to cumulatively significant air quality impacts under CEQA.

Hydrology and Water Quality

Geographic Scope and Timeframe

Table 4-10 lists the projects considered for the hydrology and water quality cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to hydrology and water quality is presented in Table 4-10. The geographic scope for the analysis of cumulative impacts related to hydrology and water quality is lands within the Salton Sea Transboundary Watershed on the western side of the West Side Main Canal.

**Table 4-10
List of Projects Considered for Hydrology and Water Quality Cumulative Impact Analysis**

	Project Name	Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The project replaces existing poles along the existing S Line transmission facility.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Approximately 3,000 acres (ac) on the 6,500 ac project site would be temporarily disturbed during construction, and approximately 2,750 ac would be permanently disturbed during project operations. The worst-case annual watershed sediment production potential from the 3,075 ac disturbed area under the IVS project would be approximately 950 cubic yards (cy). Water use during construction would be approximately 45,000 gpd on average, primarily for dust control. Peak water use during construction would be approximately 90,000 gpd, with approximately half used for dust control and half used for soil preparation on concrete pours. Fifteen peak days are expected during construction. Assuming a 39 month construction period, with 15 peak days, total construction water use would be approximately 54 million gallons (166 acre-feet). Mitigation measures were provided to ensure a less-than-significant impact.

Project Name		Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<p>The project has the potential to result in the degradation of water quality through construction activities at the Los Peñasquitos Canyon Preserve. Mitigation was provided to ensure a less-than-significant impact.</p> <p>Operation of the project can result in impacts due to increased runoff through creation of new impervious areas, flood diversions or increased erosion through placement of project features in a flow path, accidental releases of contaminants from project facilities, and damage through stream scour at locations where underground project features are beneath watercourses. Mitigation was provided to ensure a less-than-significant impact.</p>
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>USG plans to increase groundwater extraction rates by as much as 420 AF/yr over the average 1994 through 1998 baseline pumping rate of 347 AF/yr. This water demand is anticipated to continue for up to 80 years. The additional decline in water levels caused by the additional pumping cannot be readily offset by decreases in pumping elsewhere in the Basin, enhancing recharge, or importing water. The impact was determined to be significant and unavoidable.</p>
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	<p>Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction-related activities, resulting in potentially significant water quality impacts. Mitigation measures were provided to ensure a less-than-significant impact during construction.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	<p>The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.</p>	N/A

Project Name		Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is outside the Salton Sea Transboundary Watershed.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A

Project Name		Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	The groundwater model evaluated the potential drawdown in the Ocotillo area from the project, with pumping occurring at 767 AF/yr for 80 years. The impact on existing individual affected wells will be mitigated to a level of insignificance through implementation of mitigation measures. Increased pumping from USG wells has the potential to degrade water quality in the groundwater Basin due to lateral migration of higher-total dissolved solids (TDS) water located to the east of Coyote Wells, lateral migration of higher-TDS water from areas near outcrops of Tertiary marine sediments, or vertical migration of water from or near Tertiary marine sediments underlying the alluvial aquifer throughout most areas of the basin. USG is proposing to increase groundwater extraction rates by as much as 420 AF/yr over the average baseline pumping rate of 347 AF/yr for the five-year period from 1994 through 1998. The impact would remain significant.

Project Name		Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	The project has the potential to result in a short-term violation of water quality standards during construction. Mitigation measures were provided to ensure incorporation of BMPs.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	Project site is within the California Desert Conservation Area Plan (CDCA Plan) Multiple-Use Class L (Limited Use).
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in the Hydrology and Water Quality Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality Cumulative Impact Analysis?	Impacts to Hydrology and Water Quality
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	The current discharge from the facility has exceeded the effluent limits set by the RWQCB and has received notices of violations. The District proposed to carry out the project to upgrade the existing facility to Title 22 standards, with tertiary effluent suitable for unrestricted recycled uses. The project is needed to help ensure that no discharges from the facility exceed established effluent limits in the future reducing impacts to water quality from project operations.

Direct and Indirect Effects

The Proposed Action would have direct effects on hydrology and water quality if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

As previously discussed, the Proposed Action would not violate any water quality standards or waste discharge requirements, deplete groundwater supplies or recharge, substantially alter the existing drainage pattern of the site, increase erosion or surface runoff, or degrade water quality. The Proposed Action does not include any housing, permanent or temporary, as part of the scope of activity and placement of a transmission pole would not impede or substantially redirect flood flows. As such, the Proposed Action would not result in direct or indirect adverse effects to hydrology and water quality under NEPA.

CEQA Significance Determination

The Proposed Action would have a significant impact, pursuant to CEQA, involving water resources if the project would:

- Violate any water quality standards or waste discharge requirements.

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Inundation by seiche, tsunami, or mudflow.

Water quality impacts can have widespread effects throughout an entire watershed, hydrologic unit, or downstream locations. Urban development throughout the watershed would increase impervious surface areas and consequently increase runoff resulting in potential flooding, drain system capacity issues, and erosion. The small, isolated areas of impervious surfaces associated with the two substations and individual pole locations would not generate substantial volumes of runoff. The nature of the transmission lines and substation operation does not result in the use or creation of discharge that could violate water quality standards. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project. The project is generally located throughout open space areas and would not create large impervious surfaces that could

generate substantial runoff or wastewater in the immediate vicinity of other cumulative projects throughout the watershed. In addition, the project is not located in proximity to any large natural waterway that might be altered by the project. The nature of the project itself does not result in the creation of large volumes of wastewater or runoff. Any impacts to water quality would be temporary and minor and have only localized affects.

It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the Proposed Action. As with the Proposed Action, many development projects would require compliance with an RWQCB-approved SWPPP that results in construction and operation consistent with the goals and standards of the Colorado River Basin Plan for the project and other cumulative projects throughout the basin. In addition, most development projects are subject to NPDES regulations, which require source and nonpoint source BMPs to control potential effects on water quality. Compliance with applicable regulations minimizes the potential for cumulative impacts from the Proposed Action and other projects throughout the watershed. The construction of the projects identified in Table 4-10 combined, with or without the Proposed Action, would not result in a significant adverse cumulative water quality impact or hydrology under CEQA.

Health and Safety/Hazardous Materials

Geographic Scope and Timeframe

Table 4-11 lists the projects considered for the health and safety/hazardous materials cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to health and safety/hazardous materials are presented in Table 4-11. The geographic scope for the analysis of cumulative impacts related to health and safety/hazardous materials is lands within the Salton Sea Transboundary Watershed west of the West Side Main Canal for ground- or water-based contaminants and the Salton Sea Air Basin for emitted or gaseous contaminants.

Direct and Indirect Effects

The Proposed Action would have direct effects on health and safety/hazardous materials if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

Table 4-11
List of Projects Considered for Health and Safety/Hazardous Materials
Cumulative Impact Analysis

	Project Name	Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The S Line upgrade replaces existing poles and lines and would not result in impacts to health and safety/hazardous materials.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>A Phase I Environmental Site Assessment conducted for the IVS project site identified no Recognized Environmental Conditions (RECs) on the site per the American Society for Testing and Materials Standards (ASTM) definition. there was no evidence or record of any use, spillage, or disposal of hazardous substances on the site, nor was there any other environmental concern that would require remedial action. One area of potential concern was identified off site, consisting of waste disposal ponds that may have affected soil or groundwater at the IVS project site. In the event that any unexpected contamination is encountered during construction, mitigation measures were provided. Mitigation measures were provided to ensure a less-than-significant impact during construction.</p> <p>The only stationary source of emissions during operation of the IVS project would be 1 emergency diesel generator which would be operated once a week for about 15 minutes. These emissions would be a very small amount.</p> <p>Closure of the IVS project (temporary or permanent) would follow a Project Closure Plan prepared by the applicant and designed to minimize public health and environmental impacts. public health-related impacts from closure and decommissioning of the IVS</p>

Project Name	Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
			project would not be adverse.
3	Sunrise Powerlink Transmission Project (CACA-047658) Yes	--	Gasoline, diesel fuel, oil, hydraulic fluid, lubricants paints, solvents, adhesives, and cleaning chemicals used in construction activities, equipment, and vehicles can be released during construction. Spills and leaks of hazardous materials during construction activities could result in soil or groundwater contamination. In addition, the potential presence of residual pesticide and herbicide contamination of the soil and/or groundwater in the agricultural areas along the alignment represents a significant impact due to the potential health hazards to construction workers and the public stemming from exposure to pesticide or herbicide contaminated soil and/or groundwater. Mitigation measures were provided to ensure a less-than-significant impact.
4	Imperial Solar Energy Center-West (CACA-51644) Yes	--	The project would not emit hazardous emissions. During project construction and operation of the solar facility, herbicides will be used for weed management. A mitigation measure was provided to reduce the impact of herbicide use to a level less than significant.
5	Imperial Solar Energy Center – South (CACA-51645) Yes	--	The project site is not included on a list of hazardous materials sites based on the ASTM Standard Practice E2247-08 database search conducted as part of the Phase I ESA. The solar energy facility portion of the project site was previously and currently used for agricultural purposes, and has been subject to historic application of herbicides and pesticides. As a result, there is a potential for residual, low-level concentrations to be present in soil and/or groundwater. The Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer

Project Name	Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
			<p>prescribed and labeled instructions. Therefore, the potential presence of low concentrations of agricultural chemicals on the project site is considered a <i>de minimis</i> condition. In addition, the Proposed Action is the construction and operation of a solar facility and would not contain a residential or commercial component that would expose people to potential pesticides/herbicides.</p> <p>An abundant amount of trash and debris has been scattered throughout the solar energy facility site, particularly along the access roads on the project site. Improper cleanup and disposal of this debris has the potential to harm the public and the environment. Mitigation measures were provided to ensure a less-than-significant impact.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625) No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575) No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092) No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
9	Mount Signal Solar Farm	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (ACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	The Plaster City Plant includes manufacturing areas, maintenance and fueling areas, shops, and could include a co-generation facility for generating electricity from a turbine. These components require use and storage of fuels, oils, and other liquids that are classified as hazardous substances or materials. The plant area of the Quarry includes a shop that uses various petroleum-based solvents. USG has and maintains a Spill Prevention, Control and Countermeasures Plan (SPCC) that satisfies all the criteria of 40 C.F.R. §112.1, <i>et seq.</i> Additionally, catch pans, either an absorbent material or a plastic barrier, are used underneath the engines of all parked haul trucks and loaders at the Quarry to collect fluids.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	The project site contains some areas where hazardous materials may be present. These include the potential presence of pesticide/herbicide residue, miscellaneous trash and debris, and potential asbestos-associated irrigation standpipes. None of these were determined to be a substantial health risk on the project site and around the area with implementation of mitigation

Project Name	Included in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Health and Safety/Hazardous Materials Cumulative Impact Analysis?	Impacts to Health and Safety/Hazardous Materials
			measures provided that would reduce the impacts to less than significant.
41-42	No	Please refer to Table 4-2 Cumulative Projects List	These projects occur outside the scope for cumulative projects for this resource issue. N/A
43	No	Bethel Solar X, Inc.	These projects occur outside the scope for cumulative projects for this resource issue. N/A
44-51	No	Please refer to Table 4-2 for Cumulative Project List	These projects occur outside the scope for cumulative projects for this resource issue. N/A
52	Yes	IV Solar Company	Project site is within the California Desert Conservation Area Plan (CDCA Plan) Multiple-Use Class L (Limited Use). --
53-57	No	Please refer to Table 4-2 for Cumulative Project List	These projects occur outside the scope for cumulative projects for this resource issue. N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)			
58-60	No	Atlas Storage Facility	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared. N/A
61	No	Pedestrian Fence 225 and Pedestrian Fence 70	This project occurs outside the scope for cumulative projects for this resource issue. N/A
62	Yes	Seeley Wastewater Treatment Plant Upgrade	Small amounts of hazardous materials would be used during construction, which include paint, cleaners, solvents, etc. The project would comply with DTSC regulations. Mitigation measures have been provided to reduce impacts to less than significant. --

As previously discussed, the operation of the expanded substations and new transmission line would not require use of new types of hazardous materials beyond those currently used at the existing substations. Additionally, IID would ensure compliance with any applicable rules and regulations, implement its standard operational procedures and protocols, including best

management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. There are no schools located within one-quarter mile of the Proposed Action and no hazardous material sites were identified within 0.5 mile of the project area. The Proposed Action would not result in a safety hazard for people residing or working in the project area due to the distance from area airports. The project is generally located through undeveloped open space areas that are not densely populated and would not require significant evacuation operations in an emergency situation. The risk of wildland fires in the project area is considered low as the project area is not located in an area defined as high risk for fire hazards. As such, the Proposed Action would not result in direct or indirect adverse effects to health and safety/hazardous materials under NEPA.

CEQA Significance Determination

The Proposed Action would have a significant impact, pursuant to CEQA, involving health and safety/hazardous materials if the project would do the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

While some hazardous conditions are site specific, other types of hazards and public safety issues, such as wildfires or hazardous material contamination, have the potential to impact a large area.

The Proposed Action is located throughout an area mostly surrounded by open space and generally not close to developed areas. Vehicles and equipment used for construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. The operation of the expanded substations and new transmission line would not require use of new types of hazardous materials beyond those used currently at the existing substations, such as petroleum products (fuels), lubricants, solvents, and other common industrial chemicals. Under the IID Environmental, Regulatory & Emergency Planning Section, the District conducts proactive hazardous materials and waste handling, storage, and disposal in compliance with all regulatory requirements with a goal of pollution prevention and resource conservation. IID would ensure compliance with all environmental regulations managed by the Imperial County Departments of Public Health. IID would ensure compliance with any applicable rules and regulations, including the State of California CCR Title 23 Health and Safety Regulations. Further, the Proposed Action is not within one-quarter mile from any schools or airports, and is generally located in undeveloped and sparsely populated areas. The project would not combine with other projects to result in cumulatively considerable public safety impacts to schools, airports, or emergency operations. The sparsely vegetated desert landscape surrounding the project is not considered to be a high risk for wildfires, and the project is not near a wildland or urban interface. The project would have low potential for wildland fire impacts, and other projects in the immediate area would also have a low risk due to the sparse desert vegetation. While projects as identified in Table 4-11 may include components that extend close to populated facilities that could result in cumulative impacts to health and safety, the Proposed Action is not located near any such facilities and would not contribute considerably to a significant cumulative impact.

Cumulative projects are not anticipated to occur within the areas immediately adjacent to the project alignment or substations. As noted in Section 3.9, there are no hazardous waste sites within 0.5 mile of any project component. Thus, the likelihood for a hazardous material impact from the Proposed Action to combine with another cumulative project in the area to result in a significant cumulative impact related to hazardous materials is low. In addition, like the

Proposed Action, other cumulative projects would be required to meet all Federal, state, and local regulations regarding proper handling, transport, storage, and use of hazardous materials, thus further minimizing any potential cumulative hazardous material impact. For these reasons, the projects identified in Table 4-11 combined, with or without the Proposed Action, would not result in a significant adverse cumulative hazardous materials impact under CEQA.

Cultural Resources

Geographic Scope and Timeframe

In order to assess cumulative effects from the Proposed Action or Alternatives when added to other future actions within the geographic scope would be adverse and cumulative, a qualification of resources impacts from past, present and foreseeable projects was conducted.

The geographic extent, or scope, for the cumulative analysis for the project is based on the cultural resource site types found in the vicinity of the project, specifically within the eastern portion of the Yuha Desert. The key boundary for the geographic extent for the cultural resource cumulative impact analysis is the 40-foot contour for ancient Lake Cahuilla. The project is lower than the ancient high shoreline; therefore, it is likely the area experienced less intense prehistoric use, versus elevations at or above the 40-foot contour line. Using a conservative approach, however, the western boundary for the cultural resources cumulative impact analysis spans one mile beyond the 40-foot contour; this additional area is expected to encompass site types typical of the project area, as well as site types representing other occupational trends not typical of sites in the immediate project APE. The eastern boundary for the cultural resources cumulative impact is one mile from the project APE and includes active agricultural uses and increasing lower elevations; as such, the eastern boundary is expected to yield fewer cultural resources. The northern and southern boundaries for the cultural resources cumulative impact analysis is five miles from the project APE, following similar contour levels as the project; cultural resource site types are expected to be relatively consistent in this five-mile area. It is expected that the project would not contribute to residual indirect effects that could overlap with indirect effects from other projects identified for the cumulative impacts analysis, beyond the five-mile northern and southern cumulative effects analysis boundaries for this project. Table 4-12 provides a summary of the resources within the geographic scope.

Table 4-13 lists the projects considered for the cultural resources cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to cultural resources is presented in Table 4-13. As indicated in Table 4-13, there would be the potential for

impacts up to 361 cultural resources based on the projects analyzed for the cumulative impact analysis. This represents approximately 41% of the recorded cultural resources within the geographic scope. However, this number may be somewhat inflated since the Imperial Valley Solar Project (IVSP) (n= 328) as originally proposed is not longer an active project. Without IVSP the percentage drops to 4%.

**Table 4-12
Summary of Cultural Resources within the Geographic Scope**

Site Type	Number of Resources within 2.5 mile of Proposed Action*	Number of Resources Observed within Proposed Action (Bowden-Renna 2010 and 2011; Meiser 2011)
Prehistoric Cultural Resources		
Lithic Scatters	181	11
Ceramic Scatters	13	-
Lithic and Ceramic Scatters	98	1
Milling Features	2	-
Habitation Sites	44	-
Habitation Sites with Cremations/Burials	4	-
Cremations	6	-
Temporary Camps	92	5
Roasting Pits	3	-
Hearths	14	-
Lithic Quarry	1	-
Trail Marker	2	-
Trail	7	-
Trail with Associated Artifacts/Features	4	-
Food Gathering Area	1	-
Chipping Circle/Station	20	-
Sleeping Circle	2	-
Cairns with Associated Artifacts	5	-
Fire-affected Rock Deposit	1	-
Rock Rings/Circles	7	-
Rock Rings/Circles with Associated Artifacts	5	-
Unspecified Prehistoric Site	1	-
Multi-component Sites	21	2
Subtotal	534	19
Historic Cultural Resources		
Concrete Foundations	1	-
Historic Markers	11	-
Gravel Mine	1	-
Wagon Trail	2	-
Trash Scatters/Deposits	19	2
Trash Scatter/Historic Markers	4	-
Launcher	1	-
Trails	3	-
Reservoir	-	1
Subtotal	42	3

Site Type	Number of Resources within 2.5 mile of Proposed Action*	Number of Resources Observed within Proposed Action (Bowden-Renna 2010 and 2011; Meiser 2011)
Built Environment Resources		
Canals	6	1
Railroads	2	1
Highways	1	1
Buildings	2	10
Subtotal	11	13
Isolated Finds	284	31
TOTAL	871	66

*Expanded Records Search 2011

**Table 4-13
List of Projects Considered for Cultural Resources
Cumulative Impact Analysis**

Project Name		Included in Cultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources Cumulative Impact Analysis?	Impacts to Cultural Resources
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The project would replace existing poles at previously disturbed locations.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The project would affect a presently unknown subset of approximately 328 known prehistoric and historical surface archaeological resources. Absent adequate data to date, the Energy Commission and BLM are proposing to develop treatment measures that would be stipulated in a programmatic agreement that would be executed by signatory parties prior to issuance of the Record of Decision (ROD). By locating the waterline closing to the Evan Hewes Highway ROW, a greater amount of the waterline alignment would be placed in already disturbed areas, avoiding areas that may be more sensitive for biological and cultural resources.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Over 300 archaeological sites were identified within the corridor as part of the surveys for the project. Only 28 of those were impacted and the rest were avoided through project redesign. Of the 28 affected by the project, only 3 of those were determined eligible and required mitigation.

Project Name		Included in Cultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources Cumulative Impact Analysis?	Impacts to Cultural Resources
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	There are 11 sites that may be indirectly impacted (5726-S-11, S-12, S-13, S-14, S-15, S-32, S-33, S-34, S-35, S-36, and S-37. Mitigation measures were provided to ensure less-than-significant impacts.
5	Imperial Solar Energy Center –South (CACA-51645)	Yes	--	All archaeological resources were avoided by project redesign.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	Potential impacts to cultural resources are unknown at the time of this evaluation.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	Potential impacts to cultural resources are unknown at the time of this evaluation.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	Potential impacts to cultural resources are unknown at the time of this evaluation.	N/A
9	Mount Signal Solar Farm	No	Potential impacts to cultural resources are unknown at the time of this evaluation.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is outside the geographic scope for this issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	None
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Cultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources Cumulative Impact Analysis?	Impacts to Cultural Resources
13	Ocotillo Express (CACA-051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	Potential impacts to cultural and paleontological resources are unknown at the time of this evaluation.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	Current archaeological investigations identified historic site USG-01, identified and recorded remnants of County Route S80, identified an isolated flake, recorded the Quarry, and recorded the narrow gauge Railroad. The Plant and Quarry expansion and water pipeline replacement projects would not relocate any previously recorded sites or isolates.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A

Project Name		Included in Cultural Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources Cumulative Impact Analysis?	Impacts to Cultural Resources
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	One significant cultural resources site (IMP-8947) is within the project site boundaries. The site appears eligible for NRHP and CRHR. However, the site is located in the perimeter of project site boundaries. Avoidance of the important features of the site has been accomplished through a revised grading plan. Further, data recovery will also be performed. Mitigation measures have been provided to reduce the impact to less than significant.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	The Class III pedestrian survey of The Seeley Water Line Extension Corridor results in the recording of three sites, one historic and two prehistoric; five isolated finds; and the reevaluation of one previously recorded site. None of these sites is within the boundaries of the project area.

Direct and Indirect Effects

Based on project design, for the Proposed Action all pole locations will be placed outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resources. Based on these design efforts, identified cultural resources will be avoided. Therefore, there will be no effects to cultural resources.

CEQA Significance Determination

Impacts to cultural resources would be considered significant, pursuant to CEQA, if implementation of the Proposed Action or alternatives would do the following:

- Cause substantial change in the significance of a built environment resource
- Cause substantial adverse change in the significance of an archaeological resource
- Disturb any human remains, including those interred outside of formal cemeteries

The Proposed Action would not contribute to a significant cumulative impact to cultural resources.

Paleontological Resources

Geographic Scope and Timeframe

Table 4-14 lists the projects considered for the paleontological resources cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to paleontological resources is presented in Table 4-14. The geographic scope for the analysis of cumulative impacts related to paleontological resources is the Imperial Valley portion of the Salton Trough physiographic province of Southern California.

Direct and Indirect Effects

The CEQ regulations for the implementation of NEPA define cumulative effects consistent with the Supreme Court's reading of NEPA in *Kleppe v. Sierra Club*, 427 U.S. 390, 413-414 (1976). "Cumulative impact" is defined in CEQ's NEPA regulations as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions...." 40 CFR 1508.7. NEPA requires the focus to be on

whether the project's contribution to cumulative impacts or its incremental effect is considerable. The Proposed Action would have direct effects on paleontological resources if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects (BLM 2008).

Table 4-14
List of Projects Considered for Paleontological Resources
Cumulative Impact Analysis

	Project Name	Included in the Paleontological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources Cumulative Impact Analysis?	Impacts to Paleontological Resources
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The project would replace existing poles at previously disturbed locations.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The paleontological sensitivity of the Holocene alluvium and colluvium within the IVS project site boundary is considered to be moderate. The paleontological formations on the IVS project site that have moderate to high sensitivity could be adversely affected during construction as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil. Mitigation measures are provided intended to ensure that the paleontological resource impacts during construction. No impacts to paleontological resources are anticipated during the operation of the IVS project.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	The potential to discover paleontological resources during the construction of the proposed 500 kV FTSE transmission line ranges from zero to high. Potential to impact paleontological resources with a high sensitivity rating during construction. However, impacts to paleontological resources would be reduced to a level less than significant with implementation of mitigation measures identified in the EIR/EIS.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The project site is located in the Salton Trough and is underlain by quaternary lake deposits of ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. According to the BLM's PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as

	Project Name	Included in the Paleontological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources Cumulative Impact Analysis?	Impacts to Paleontological Resources
				Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Mitigation measures are provided to ensure a less-than - significant impact during construction would not be adverse under CEQA
5	Imperial Solar Energy Center –South (CACA-51645)	Yes	--	The project site is located in the Salton Trough and is underlain by quaternary lake deposits of ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. According to the BLM’s PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Mitigation measures are provided to ensure a less-than - significant impact during construction would not be adverse under CEQA
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	Potential impacts to paleontological resources are unknown at the time of this evaluation.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	Potential impacts to cultural and paleontological resources are unknown at the time of this evaluation.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	Potential impacts to cultural and paleontological resources are unknown at the time of this evaluation.	N/A

Project Name		Included in the Paleontological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources Cumulative Impact Analysis?	Impacts to Paleontological Resources
9	Mount Signal Solar Farm	No	Potential impacts to cultural and paleontological resources are unknown at the time of this evaluation.	N/A
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is outside the geographic scope for this issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA-051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	Potential impacts to cultural and paleontological resources are unknown at the time of this evaluation.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in the Paleontological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources Cumulative Impact Analysis?	Impacts to Paleontological Resources
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	No impacts to paleontological resources are anticipated during the operation of the IV Solar project.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	No impacts to paleontological resources are anticipated.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	Yes	--	No impacts to paleontological resources are anticipated during the operation of the IV Solar project.
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in the Paleontological Resources Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources Cumulative Impact Analysis?	Impacts to Paleontological Resources
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	<p>The SWWRF upgrades would be located in the Imperial Valley region of the Salton Trough. This region is primarily underlain by the lake deposits of the ancient Lake Cahuilla. Fossil remains discovered in the Cahuilla Lake Beds include freshwater diatoms, sponges, terrestrial plants, mollusks, fish, ostracodes, and small terrestrial <i>vertebrates</i>.</p> <p>The proposed construction and operations of the SWWRF upgrades is not likely to result in significant impacts to paleontological resources. However, the potential for exposure of paleontological resources would increase with depth of excavations. Mitigation measures were provided to reduce impacts to paleontological resources less than significant.</p>

As noted in the BLM's IM 2009-011 Assessment and Mitigation of Potential Impacts to Paleontological Resources (BLM 2008) is discretionary. State law prohibits intentional destruction of paleontological resources and requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands. It cannot be stated with certainty that projects identified with potential cumulative impacts to paleontological resources would be required to minimize or mitigate for any such impacts.

One paleontological resource was previously identified within a one-mile radius of the Proposed Action. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. The sensitivity to paleontological resources in Quaternary lake deposits is considered high.

The Proposed Action may have direct and indirect impacts during construction and operational repairs. In order to avoid impacts to paleontological resources, mitigation measures PR-1 through PR-3 would be implemented. The Proposed Action's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of mitigation measures PR-1 through PR-3.

CEQA Significance Determination

Impacts to cultural resources would be considered significant, pursuant to CEQA, if implementation of the Proposed Action or alternatives would do the following:

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

One paleontological resource was previously identified within a one-mile radius of the Proposed Action. Mitigation measures, as provided in Section 3.11, Paleontological Resources, and compliance with existing regulations, require a qualified paleontologist to consult with grading and excavation contractors prior to commencement of ground-disturbing activities. Further, in the event that paleontological resources are encountered during ground-disturbing activities, all work would be redirected until the resource can be assessed and/or recovered. The procedures for monitoring, investigating, and taking further action, if required, will follow BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources." Implementation of mitigation measures PR-1 through PR-3 would ensure a less-than-significant impact. As such, the Proposed Action would not contribute to a significant cumulative impact to paleontological resources.

Socioeconomic Conditions and Environmental Justice

Geographic Scope and Timeframe

Table 4-15 lists the projects considered for the socioeconomic and environmental justice cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to socioeconomic and environmental justice is presented in Table 4-15.

The geographic scope of cumulative impacts related to socioeconomics and environmental justice is the Region of Influence (ROI), which consists of two U.S. Census blocks within Imperial County (123.01 – Block Group 1 and 111.00 – Block Group 4). These units were selected as the unit of measurement for socioeconomic data due to the availability and comparability of data at this level, as well as the widely-established convention of U.S. Census data use. Selection of the block groups and tracts that are traversed by the project was made based on the assumption that all likely, direct socioeconomic impacts from the project, if any, would be confined to this area. The ROI is located in Imperial County, and selected

socioeconomic information at the county level is provided for comparison to the smaller units contained within it, as well as to describe the total area where the direct and indirect proposed project-related impacts, if any, would occur.

Table 4-15
List of Projects Considered for Socioeconomic and Environmental Justice
Cumulative Impact Analysis

	Project Name	Included in Socioeconomic and Environmental Justice Impact Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic and Environmental Justice Impact Analysis?	Impacts to Socioeconomic and Environmental Justice
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	The proposed project would increase electric reliability by upgrading the structural capacity of the transmission line to meet regulations and future demand and by providing enhanced infrastructure, and indirectly induce planned growth. Improved dependability of the electrical service to the area serves planned residences and businesses and provides additional service for future needs. No existing housing or residents would be displaced by the proposed project.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Because the majority of the construction workforce currently resides within Imperial, San Diego, San Bernardino, and Riverside Counties, construction, operation, and decommissioning of the project would have little impact with respect to inducing substantial population growth. Inducement of substantial population growth either directly or indirectly by the project would not be adverse. The labor force would be within commuting distance of the project site. As such, it is anticipated that a majority of construction workers would commute to the site daily from their existing residences. No new housing construction would be required. Furthermore, the project would not displace any people or necessitate construction of replacement housing elsewhere.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<p>The Sunrise Powerlink Transmission Project would result in socioeconomics/environmental justice impacts due to the following:</p> <p>Project construction and/or transmission line presence would cause a substantial change in revenue for businesses, tribes, or government.</p> <p>Construction would disrupt the existing utility systems or cause a collocation accident.</p> <p>Project construction and operation would increase the need for public services and facilities.</p> <p>Visual impact would constitute a significant and unmitigable environmental impact to a high-minority group (Barona Reservation).</p> <p>Air quality impact would constitute a significant and unmitigable environmental impact to a high-minority group (Barona Reservation).</p>

	Project Name	Included in Socioeconomic and Environmental Justice Impact Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic and Environmental Justice Impact Analysis?	Impacts to Socioeconomic and Environmental Justice
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	Based on the available housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration. As such, the construction of the ISEC West project would place a negligible, temporary demand on housing, which is not considered a significant impact. The project would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor. Furthermore, the project will provide beneficial effects on the surrounding area by proving social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	Based on the available housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration. As such, the construction of the Proposed Action would place a negligible, temporary demand on housing, which is not considered a significant impact. The Proposed Action would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor. Furthermore, the Proposed Action will provide beneficial effects on the surrounding area by proving social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
9	Mount Signal Solar Farm	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A

Project Name		Included in Socioeconomic and Environmental Justice Impact Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic and Environmental Justice Impact Analysis?	Impacts to Socioeconomic and Environmental Justice
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA-051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A

Project Name		Included in Socioeconomic and Environmental Justice Impact Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic and Environmental Justice Impact Analysis?	Impacts to Socioeconomic and Environmental Justice
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	Implementation of the proposed project will not result in a significant population and housing impact. The project would not divide an established community, and the project would not place a significant demand on housing or result in a significant permanent increase in population.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Socioeconomic and Environmental Justice Impact Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic and Environmental Justice Impact Analysis?	Impacts to Socioeconomic and Environmental Justice
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	Because of the limited population in the town of Seeley, construction workers would most likely be from larger nearby cities such as El Centro. While there is limited housing in the town of Seeley, workers could easily commute from cities and towns within the El Centro region. Because of the limited number of workers required during for the project, and the available works and high unemployment rate, it is expected that there would be no potentially significant socioeconomic impacts.

Direct and Indirect Effects

Under NEPA, economic or social effects must be discussed if they are inter-related to the natural or physical environmental effects of a project. Since economic effects of the upgrades to the Proposed Action are related to physical environmental effects, a NEPA analysis is required. However, NEPA does not require that socioeconomic impacts be evaluated for significance. Under NEPA, the Proposed Action would have direct effects on environmental justice if the project would result in disproportionate effects on low-income or minority populations in the project vicinity. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects in relation to the disproportionate effects on low-income or minority populations in the project vicinity.

The Proposed Action consists of constructing approximately 53 new utility poles and associated maintenance road along approximately 7 miles extending from the existing IV Substation to the Dixieland Substation. The new Liebert Substation would be constructed approximately 400 feet north of the IV Substation and a new transformer would be installed at the Dixieland Substation. The pole route is along the west edge of an existing agricultural area and would not be located within or along the boundary of any existing residential or community uses.

As discussed in the analysis above, the project would be located along an existing boundary and would not result in a new feature that would induce substantial population growth or displace substantial numbers of housing or people. While there would be increased employment during the construction period, the direct and indirect effects would be minimal and beneficial. There will be no employment associated with operation of the Proposed Action. As such, implementation of the Proposed Action, for construction and operations, would not result in direct or indirect effects to socioeconomics.

As discussed previously, no permanent environmental adverse effects would result from the Proposed Action. Additionally, mitigation would be incorporated to reduce potential adverse effects associated with the Proposed Action. Therefore, no permanent adverse human health effects or permanent adverse environmental effects are likely to affect any population near the project site. No permanent adverse effects to low-income or minority groups, as identified in this environmental justice analysis, are anticipated.

Temporary adverse impacts would occur as a result of the project; however, the implementation of mitigation measures would help further reduce potential adverse effects associated with the Proposed Action. For this reason, there would no environmental justice adverse effects associated with the Proposed Action.

CEQA Significance Determination

The Proposed Action would have a significant impact, pursuant to CEQA, involving socioeconomics if the project would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Construction of the Proposed Action would not induce substantial population growth in the area, either directly or indirectly, thereby completion of the Proposed Action would have no impact.

Operation of the Proposed Action would not induce substantial population growth in the area, either directly or indirectly, thereby operation of the Proposed Action would have no impact.

Construction of the Proposed Action would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, thereby completion of the Proposed Action would have no impact. Operation of the Proposed Action would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, thereby operation of the Proposed Action would have no impact.

Construction of the Proposed Action would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere, thereby completion of the Proposed Action would have no impact. Operation of the Proposed Action would not displace substantial numbers of existing people, necessitating the construction of replacement housing elsewhere, thereby operation of the Proposed Action would have no impact.

Transportation and Traffic

Geographic Scope and Timeframe

Table 4-16 lists the projects considered for the transportation and traffic cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to transportation and traffic is presented in Table 4-16. The geographic scope for consideration of cumulative impacts to transportation and traffic generally includes I-8, Evan Hewes Highway, and SR-98.

Table 4-16
List of Projects Considered for Transportation and Traffic
Cumulative Impact Analysis

	Project Name	Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
1	“S” Line Upgrade 230-kV Transmission Line Project	No	The project would replace existing poles and would not generate substantial traffic during construction or operation.	N/A

Project Name		Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The total peak construction traffic (workforce and trucks) for the IVS project would be 758 vehicle trips (731 workers plus 27 trucks) per peak hour. The project would result in only minor traffic and transportation effects which would be substantially mitigated based on implementation of the mitigation measures provided. The impacts would be reduced to less than significant.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Construction of the project would cause temporary lane roadway closures for a few minutes at a time at locations where construction activities, especially transmission line stringing, would be located within ROWs of public streets and highways. Such closures are regulated by the applicable jurisdictional agency through encroachment permits, which require specific measures to minimize disruption to local traffic flow. The impact would be less than significant.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	Under Year 2012 plus project conditions with Drew Road Interchange open, the study intersections and roadways were calculated to operate at LOS C or better. Therefore, no direct impacts under CEQA were identified under these conditions. Under Year 2012 plus project conditions with Drew Road Interchange closed, the study intersections and roadways were calculated to operate at LOS C or better. Therefore, no direct impacts under CEQA were identified under these conditions.

Project Name	Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
5 Imperial Solar Energy Center – South (CACA-51645)	Yes	--	Implementation of the project would generate approximately 680 ADT during construction and 10 to 15 ADT during operations and maintenance of the project. Potential cumulative impacts of the project were anticipated to occur within the short-term timeframe (Year 2012) and not within the long-term timeframe (Year 2030). no direct impacts under CEQA to intersections or roadway segments were identified.
6 SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
7 North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
8 Centinela Solar Power, LLC (CACA-052092)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
9 Mount Signal Solar Farm	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
10 San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11 Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12 Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13 Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	All study intersections and roadway segments would operate at LOS A for the "Existing Plus Project" and "Future Plus Project" conditions. The project will not create change in LOS and all study intersections and roadway segments operate at a LOS above the minimum defined by the Imperial County General Plan.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
40	Desert Springs Resort	Yes	--	Implementation would generate approximately 7,275 daily trips with 383 AM peak hour trips, and 714 PM peak hour trips during the weekday. On weekends, the project would generate 7,066 average daily trips. Mitigation measures were provided for impacted intersection and roadway segments that would reduce the impact to less than significant.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Transportation and Traffic Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Transportation and Traffic Cumulative Impact Analysis?	Impacts to Transportation and Traffic
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	Construction would result in a slight increase in traffic associated with the delivery of equipment and construction workers. As such, it is likely that the roads would remain within the level of service thresholds identified by local jurisdictions. Operation of the project is expected to result in a very minor increase in yearly traffic. This minor traffic is not expected to result in additional impacts to traffic or transportation.

Direct and Indirect Effects

The Proposed Action would have direct effects on transportation and traffic if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects.

Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from the Proposed Action, construction vehicles would have a minimal effect on the local roadway system. This level of use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards. The Proposed Action would not cause a change in air traffic patterns, levels, or locations or directly affect any public or private roadways in the project area. The Proposed Action would not affect existing emergency access in the vicinity of the project and only require temporary construction parking, which would primarily occur within the IID 140-foot-wide ROW. Construction, operation, and maintenance of the line would have no effects that could affect alternative transportation modes, because the only traffic that would be generated would be during construction. As such, the Proposed Action would not result in direct or indirect adverse effects to transportation and traffic under NEPA.

CEQA Significance Determination

A significant impact related to transportation/traffic would occur, pursuant to CEQA, if implementation of the Proposed Action would do the following:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system
- Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increase hazards due to a design feature or incompatible uses
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies, plans, or programs supporting alternative transportation

The project is located in a rural area with few public roads and little traffic. Part of this area is built-out with agricultural uses, while most of the remainder of the project area consists of federally owned public lands in use for recreational pursuits. This area is not expected to experience any substantial changes related to transportation in the foreseeable future because of the existing land uses currently in place and the cumulative projects do not include substantial long-term traffic-generating components. For these reasons, the projects identified in Table 4-16 combined, with or without the Proposed Action, would not result in a significant adverse cumulative traffic impact under CEQA.

The Proposed Action would involve minor temporary increases in traffic that would only affect the immediate project vicinity and only over a limited period of time while the project is being constructed. Traffic and transportation impacts from the Proposed Action would primarily consist of those associated with construction activities. Once constructed, IID personnel would only travel to this area to conduct routine maintenance along the transmission line ROW. For these reasons, this project would have a very minor incremental effect on transportation and traffic in this area that would not be cumulatively considerable under CEQA.

The construction, operation, and maintenance of the Proposed Action would require heavy vehicle access to the structure sites. Access would be via the proposed transmission line ROW. The proposed ROW is 140 feet and the travel route would be 16 feet within the ROW. Access to the work areas within the ROW would be via the ROW access road and from existing private roads in the project area. Due to the rural nature of the project area, the low amount of existing

traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. This impact was found to be less than significant under CEQA.

Further, the Proposed Action would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations. The Proposed Action would not directly affect any public or private roadways in the project area or change any design features associated with these roadways. For these reasons, the project was found to have no impact involving changing air traffic patterns and roadway design features or incompatible uses under CEQA.

The Proposed Action would not affect existing emergency access in the vicinity of the project. No direct impacts to roadway facilities would occur. Short-term traffic associated with movement of construction equipment would be generated, but the number of vehicles would not be substantial and would only occur during project construction. For these reasons, the project was found to have less-than-significant impacts on emergency access under CEQA.

Therefore, no significant impact under CEQA is identified for this issue area. The cumulative projects would not otherwise cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system; substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; result in inadequate parking capacity; or, conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Recreation

Direct and Indirect Effects

The Proposed Action's transmission line corridor would be located within an area currently designated by the BLM's CDCA as Utility Corridor "N." The purpose of the Utility "N" Corridor is to provide a designated area within the BLM lands for utility structures such as transmission lines and to group these utilities together in one area rather than allow utilities to be scattered throughout BLM lands. Table 4-17 provides projects analyzed for the cumulative effects to recreation.

The entire transmission line corridor site is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use). The Limited Use

designation is suitable for recreation “...which generally involves low to moderate use densities.” The Limited Use designation also limits all motorized travel to designated routes. Utility Corridor “N” is not designated for OHV recreation; however, the BLM lands located adjacent to the Utility Corridor “N” can be used for OHV recreation. With the installation of the transmission line corridor within the designated Utility Corridor “N”, the Proposed Action would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be minimized. Indirect effects from OHV use that may increase on surrounding routes as a result of the proposed maintenance road are contemplated in the sections where such effects could be adverse, including Section 3.5 Biological Resources.

Table 4-17
List of Projects Considered for Recreation Impact Analysis

Project Name		Included in Recreation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Recreation Cumulative Impact Analysis?	Impacts to Recreation
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	The proposed project would not increase the demand for parks or other recreations facilities. The proposed project does not include recreational facilities and would not have an adverse effect on surrounding areas.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Because the project would result in the conversion of over 6,000 acres of land, a disruption of recreational activities established in Federal, State, and local recreational areas would result. Identified direct, indirect, short- and long- term impacts include impacts to: off highway vehicle (OHV) Open Routes; the Anza Trail Corridor Historical context Impacts associated with the conversion of recreation land uses would result in unavoidable adverse impacts after the implementation of mitigation measures.

	Project Name	Included in Recreation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Recreation Cumulative Impact Analysis?	Impacts to Recreation
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	The proposed project would result in temporary impacts associated with construction resulting in a reduction of access or visitation to recreation and wilderness areas. Operational impacts would result in unavoidable adverse impacts to wilderness. Presence of the transmission line within State wilderness areas is inconsistent with the definition of wilderness and would require de-designation of affected wilderness lands, thereby resulting in significant, unmitigable impacts. Additionally, the proposed project would traverse six open space preserves, the Trans-County Trail, and the Pacific Crest Trail (PCT) significantly diminishing the character and value of these recreational resources and permanently precluding recreational activities. Should project structures be sited on trails.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	Because no significant recreation impacts have been identified for this project, no mitigation measures have been proposed.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	Because no significant recreation impacts have been identified for this project, no mitigation measures have been proposed.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	Located on approximately 100 acres of Federal land directly adjacent to SDG&E’s IV Substation.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of information available regarding this project was insufficient to determine the project’s potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Located on approximately 2,067 acres of privately owned agricultural land in the western portion of Imperial County near the IV Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north.
9	Mount Signal Solar Farm	Yes	--	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. ROW is located within BLM lands.

	Project Name	Included in Recreation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Recreation Cumulative Impact Analysis?	Impacts to Recreation
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Recreation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Recreation Cumulative Impact Analysis?	Impacts to Recreation
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	The Plant site totals approximately 473 acres with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land, and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM. Recreational land uses within project vicinity include dispersed recreational opportunities (hiking, backpacking, horseback riding, and camping) at Fish Creek Mountains Wilderness Area and Anza-Borrego Desert State Park. However, continued quarrying activities in the canyon would not significantly affect recreational opportunities on these adjacent public lands and therefore, require no mitigation measures be implemented. Because the potential effects of proposed project would be similar to existing Quarrying activities, there would not be a substantial change from baseline conditions resulting in less than significant impacts.
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
40	Desert Springs Resort	Yes	--	The majority of 1,105-acres project site is currently used for agricultural production or has been utilized for agriculture. The remainder is currently undeveloped and vacant and is identified as fallow and/or disturbed desert areas. Surrounding land uses include government/special use areas to the north and west, the Fillaree Canal to the east, the Westside main Canal to the southeast, and agriculture land to the south. Because this

Project Name		Included in Recreation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Recreation Cumulative Impact Analysis?	Impacts to Recreation
				project will not have an impact to recreational resources, no mitigation measures have been identified.
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-51	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
52	IV Solar Company	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
53-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	No recreation areas occur on site and no recreational areas are located within 1,000 feet of the facility.

The Proposed Action would construct a maintenance road within the BLM lands that could potentially be used as a corridor for OHV use. This road would intersect with other existing BLM and County roads that cross the proposed transmission line corridor. The new maintenance road would connect with existing routes used for OHV access to the vicinity and would potentially result in the creation of additional routes by OHV use. The construction of the transmission line corridor proposed under the Proposed Action would not directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas; substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreation facilities or wilderness areas; or, diminish the enjoyment of existing recreational opportunities.

The substation facility of the Proposed Action does not involve the construction of recreation facilities. Furthermore, the Proposed Action is the construction and operation of a substation facility and would not contain a residential component. Because the Proposed Action would not contain a residential component it would not increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated and would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. As such, the Proposed Action would not result in direct or indirect adverse effects to recreational resources under NEPA.

CEQA Significance Determination

A significant impact related to recreation resources would occur if implementation of the Proposed Action would:

- Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas;
- Substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreational facilities, or wilderness areas;
- Diminish the enjoyment of existing recreational opportunities.

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or,
- Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

The Proposed Action's transmission line corridor would be located within an area currently designated by the BLM's CDCA as Utility Corridor "N." The purpose of the Utility "N" Corridor is to provide a designated area within the BLM lands for utility structures such as transmission lines and to group these utilities together in one area rather than allow utilities to be scattered throughout BLM lands.

The entire transmission line corridor site is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use). The Limited Use designation is suitable for recreation "...which generally involves low to moderate use densities." The Limited Use designation also limits all motorized travel to designated routes. Utility Corridor "N" is not designated for OHV recreation; however, the BLM lands located adjacent to the Utility Corridor "N" can be used for OHV recreation. With the installation of the transmission line corridor within the designated Utility Corridor "N", the Proposed Action would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be minimized.

The Proposed Action would construct a maintenance road within the BLM lands that could potentially be used as a corridor for OHV use. This road would intersect with other existing BLM and County roads that cross the proposed transmission line corridor. The new maintenance road would connect with existing routes used for OHV access to the vicinity and would potentially result in the creation of additional routes by OHV use. The construction of the transmission line corridor proposed under the Proposed Action would not directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas; substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreation facilities or wilderness areas; or, diminish the enjoyment of existing recreational opportunities.

The substation facility of the Proposed Action does not involve the construction of recreation facilities. Furthermore, the Proposed Action is the construction and operation of a substation facility and would not contain a residential component. Because the Proposed Action would not

contain a residential component it would not increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated and would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. Therefore, no significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in the County of Imperial.

Special Designation

Geographic Scope and Timeframe

Table 4-18 lists the projects considered for the special designation cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to specially designated areas is presented in Table 4-18. The geographic scope for the analysis of cumulative impacts related to land use is lands within the RSA.

**Table 4-18
List of Projects Considered for Special Designation Cumulative Impact Analysis**

	Project Name	Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
1	“S” Line Upgrade 230-kV Transmission Line Project	Yes	--	The “S” Line upgrade would install approximately (+/-) 285 new double-circuit steel poles to replace the existing wood poles supporting a single 230-kV circuit. No significant impact to special designations would occur because the project would upgrade (i.e., replace) equipment within the existing “S” line transmission corridor.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	This project is not in or adjacent to any designated wilderness area. Therefore, the project would not affect any designated wilderness areas or otherwise conflict with the management goals established for wilderness areas in the CDCA Plan. The proposed project will not take any land from the Yuha Desert ACEC and, because it is across I-8, it is not expected to adversely affect this ACEC in the context of its special land use designation. Other than the potential effects to the Juan Bautista de Anza National Historic Trail on and immediately adjacent to the project

	Project Name	Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
				site, the project would not impact the Yuha Desert ACEC. There are no designated Special Areas on or in the vicinity of the project site. Therefore, the project will not impact any designated Special Areas.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Construction activities would temporarily reduce access and visitation to recreation or wilderness areas. Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land.
4	Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The ISEC West project is an allowable use under the CDCA, as the proposed ROW falls within the CDCA designated "Utility Corridor N." Proposed impacts to resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the ISEC West project would not conflict with the management goals of any special designation area.
5	Imperial Solar Energy Center – South (CACA-51645)	Yes	--	The Proposed Action is an allowable use under the CDCA, as the proposed ROW falls within the CDCA designated Utility Corridor "N." Proposed impacts to resources are in conformance with the CDCA and maintain the integrity and intent of the Conservation Plan. Therefore, the Proposed Action would not conflict with the management goals of any special designations area. However, the Proposed Action may have a direct impact on visual resources by slightly affecting views of the Juan Bautista de Anza National Historic Trail.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The BLM did not have complete POD as of the NOP date. The project was considered speculative and therefore, not viable at the time. Multiple PODs have been requested by BLM with the project shrinking each time.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	N/A

Project Name		Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Located on approximately 2,067 acres of privately owned agricultural land in the western portion of Imperial County near the IV Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north.
9	Mount Signal Solar Farm	Yes	--	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. ROW is located within BLM lands.
10	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
11	Proposed Action: Dixieland Connection to IID Transmission System	Yes	--	
12	Superstition Solar 1	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
13	Ocotillo Express (CACA- 051552)	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
14-17	Please refer to Table 4-2 for Cumulative Project List	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
18-19	Please refer to Table 4-2 Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
20	Mt. Signal Solar Power Station	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
21	Orni 18, LLC Geothermal Power Plant	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
23-24	Recreation Activities	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
25	U.S. Gypsum Mining	Yes	--	<p>Highway 8 is to the south of the plant, which is located in the Yuha Desert. To the north is the El Centro Naval Reservation. To the west is the community of Ocotillo and the Coyote Mountains. To the east are the communities of Seeley, Imperial, and Heber, and the City of El Centro, as well as the Sunbeam Recreation Area and El Centro Naval Auxiliary Air Station. Land uses surrounding the quarry consist mostly of public lands. To the south of the Quarry are the Fish Creek Mountains Wilderness Area and the Anza Borrego Desert State Park. To the north are Fish Creek and the Anza Borrego Desert State Park. To the west are the Anza Borrego Desert State Park and the County of San Diego. To the east is the Fish Creek Mountains Wilderness Area.</p> <p>The plant site totals approximately 473 acres, with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM.</p>
26	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
Projects Within the Jurisdiction of Imperial County				
27-39	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
40	Desert Springs Resort	Yes	--	<p>No significant land use impacts due to the following:</p> <p>The project site is located within an unincorporated area of southwestern Imperial County and is predominately surrounded by agriculture and vacant lands. Therefore, the project would not divide an established community, as no development exists within or in the surrounding area of the site. With approval of the General Plan Amendment, the proposed project would be compatible and consistent with the land use designations of the Specific Plan. With approval of the Change of Zone, the proposed project would be compatible and consistent with the zoning of the project site.</p> <p>The proposed project is designed to preserve the BLM area that surrounds the site and be consistent with the California Desert Conservation Area Plan, Flat-tailed Horned Lizard Rangewide Management Strategy, and Western Colorado Desert Routes of Travel Designations.</p>
41-42	Please refer to Table 4-2 Cumulative Projects List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
43	Bethel Solar X, Inc.	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
44-57	Please refer to Table 4-2 for Cumulative Project List	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
Foreseeable Projects in the Plaster City Area (Source: Imperial Valley Solar Project FEIS)				
58-60	Atlas Storage Facility	No	The level of information available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
61	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A

Project Name		Included in Special Designation Cumulative Impact Analysis?	Rationale for Not Including Potential Projects in the Special Designation Cumulative Impact Analysis?	Impacts to Special Designation
62	Seeley Wastewater Treatment Plant Upgrade	No	The proposed upgrades would occur entirely within the boundaries of the existing SWWRF; they would not physically divide an established community, nor conflict with any land use plans or policies.	N/A

Direct and Indirect Effects

The Proposed Action would have direct effects with the management goals of any special designation area if it would cause effects at the time of implementation and within the area of proposed development. The Proposed Action would have indirect effects if it would cause reasonably foreseeable effects within the planned life of applicable adopted planning documentation or in geographic areas addressed in those documents removed from the Proposed Action site.

The Proposed Action would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources, measures BIO-3 and BIO-4, would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, the Proposed Action's incremental cumulative impact would be minimal and mitigated. The Proposed Action would not otherwise result in direct or indirect cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

The Proposed Action would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources, measures BIO-3 and BIO-4, would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, the Proposed Action's incremental cumulative impact would be minimal and mitigated. The Proposed Action would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

4.3.2 Comparisons of Alternatives for Cumulative Impact Analysis

Route Alternative 1

Land Use

Direct and Indirect Effects

Route Alternative 1 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation, turns to follow a more easterly alignment for approximately 1.8 miles, and then turns west to rejoin approximately the same alignment as the Proposed Action.

Route Alternative 1 would not directly or indirectly affect an established community, require any change in land use designations, or conflict the FLMPA, CDCA, or other applicable land use plans. As such, implementation of the Route Alternative 1 would not result in direct or indirect effects to land use under NEPA.

CEQA Significance Determination

As discussed earlier in this section, the majority of the Imperial County General Plan and zoning policies analyzed for the project would not be applicable to Route Alternative 1, as the policies direct future long-term land use that Route Alternative 1 would not affect, given that transmission lines impact only a small segment of the land used for the ROW. The combination of several of the cumulative projects as identified in Table 4-3 could result in cumulative land use impacts to lands designated for agricultural or government/special public, or within the FTHL Yuha Desert Management Area. The cumulative impacts to agricultural lands and the FTHL Yuha Desert Management Area are discussed below under the Agriculture and Biological Resources headings.

Route Alternative 1 is located entirely within Imperial County along the boundary between primarily agricultural fields or fallow lands and vacant lands of the Yuha Desert. There are no significant differences between the Proposed Action and Route Alternative 1. As such, the impacts do not vary significantly and follow approximately the same alignment. Route Alternative 1 would not divide an existing community. Route Alternative 1 would be generally consistent with all land use laws and regulations applicable to lands within Imperial County, including within BLM-administered lands. No change of land use plans or policies would be

required to implement the project, and the alignment of the proposed power poles would be within a utility corridor designated by BLM. The minor inconsistencies between Route Alternative 1 and current land use designations include temporary use of agricultural land for construction purposes. As discussed in detail in Sections 3.1 and 3.2, these impacts would be minimal and generally temporary. Therefore, Route Alternative 1 would not contribute considerably to cumulative land use impacts to lands designated for agricultural, government/special public, or BLM use in the project area under CEQA.

Agriculture

Direct and Indirect Effects

Route Alternative 1 would be similar in engineering and design as the Proposed Action with only a slight difference in alignment. As discussed above, Route Alternative 1 would have no direct and indirect adverse effects to soils and geology.

CEQA Significance Determination

Imperial County has historically supported a variety of agricultural uses. As the demand for housing and land in these areas continues to increase with the population increase, the pressure for conversion of farmland to urban uses is also increasing. It can be expected that, with population growth in the region, this development pressure would contribute to the overall loss of farmland. The combination of several of the cumulative projects as identified in Table 4-4 could result in cumulative impacts to agriculture.

Agricultural lands are present within the footprint of Alternative 1, though most of these lands are currently fallow. The permanent locations of poles would not impact existing agricultural operations or reduce availability of agricultural land. Any impacts from construction operations would be temporary only.

Even though the cumulative loss of farmland is substantial throughout the region, Route Alternative 1 would only contribute incrementally to this cumulative impact. Relatively small permanent impacts (2.07 acres) would occur at each pole site because of the small footprint for the poles (10-foot diameter each) and from portions of the 16-foot-wide maintenance road. Furthermore, farming operations would be capable of continuing around the proposed facilities. No other aspects of Route Alternative 1 would permanently impact farmlands. Therefore,

Alternative 1 would not contribute considerably to the potentially cumulative significant impact to agriculture.

Soils and Geology

Direct and Indirect Effects

Route Alternative 1 would be similar in engineering and design as the Proposed Action with only a slight difference in alignment. As discussed above, Route Alternative 1 would have no direct and indirect adverse effects to soils and geology under NEPA.

CEQA Significance Determination

Though geology is a regional issue with geologic features sometimes spanning very large areas, impacts to soils and geology are typically site-specific and are unaffected by actions not occurring directly on them. Components of this alternative and the Proposed Action are basically identical, with slight differences in alignment.

Route Alternative 1 is located throughout an area mostly surrounded by open space and generally not close to structures or areas commonly used by people. The slight route difference between the Proposed Action and Route Alternative 1 does not change the seismically active geologic setting that would affect the project.

In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required by the UBC, CBC, and industry standards. Therefore, the impacts of Route Alternative 1 would have less-than-significant impacts to soils and geology under CEQA.

Visual Resources

Direct and Indirect Effects

Route Alternative 1 would have similar effects to scenic vista, scenic resources, visual character, or light and glare as the Proposed Action. As such, Route Alternative 1 would not result in direct or indirect adverse effects to visual resources under NEPA.

CEQA Significance Determination

As with the Proposed Action, Route Alternative 1 would also locate the transmission line in an area consisting primarily of open desert and fallow agricultural land and would primarily affect views from eastbound I-8 to the southeast. The impact to views from I-8 would not be substantially different than the Proposed Action alignment and would similarly be affected by intrusions of existing transmission towers and by desert lands disturbed by now-fallow agricultural plots and by off-highway-vehicle use. From medium- and long-range perspectives, Route Alternative 1 would not contribute to significant adverse change to scenic views, aesthetics resources, or visual character of the area, given the existing level of dissimilar visual conditions and abrupt divide between fallow agricultural lands and desert lands. Therefore, the impacts of Route Alternative 1 would have less-than-significant impacts to visual resources under CEQA.

Biological Resources

Direct and Indirect Effects

For Route Alternative 1, potential impacts to special-status plants would be similar to those discussed for the Proposed Action. Mitigation would be required to reduce impacts to a less-than-significant level. Alternative 1 would be implemented in an area that contains habitat for BUOW and FTHL, along with a range of other sensitive and common species, including migratory species protected under the MBTA. Other projects in the region, such as transmission line projects, power plants, and other infrastructure projects, affect these species to varying degrees depending on their location and magnitude. Alternative 1 would permanently remove a relatively small amount of habitat for these species in an area that is considered to be of high habitat value for both BUOW and FTHL. However, mitigation measures have been proposed that would compensate for the loss of habitat and limit potential direct and indirect impacts. With respect to FTHL, impacts to the Yuha Management Area would still be within the 1% impact allowance set forth in the FTHLRMS by the Interagency Coordinating Committee. Existing disturbance within the MA totals 180.01 acres. Of the 752 acres that is the 1% cap, 572 acres remains. The cumulative projects in Table 4-7 combined would reduce the available acreage within the 1% cap by 316.5 acres, to leave 255.42 acres. Route Alternative 1 would further reduce the available 1% cap within the MA by 42.42 acres, to leave 213 acres. For these reasons, implementation of Route Alternative 1 would have incremental impacts on biological resources in this area, but those impacts would not be cumulatively considerable with implementation of the mitigation identified for project impacts under NEPA.

CEQA Significance Determination

The geographic scope for considering cumulative biological impacts cannot be defined by jurisdictional or other political boundaries, as sensitive habitats and species can have widespread ranges and can vary for individual species. For this reason, the biological cumulative impact analysis includes the Yuha Management Area.

For Route Alternative 1, potential impacts to special-status plants would be similar to those discussed for the Proposed Action. Mitigation would be required to reduce impacts to a less-than-significant level.

Route Alternative 1 primarily parallels the Proposed Action alignment and impacts would be very similar. There would be construction activities within BUOW habitat and potential for loss of habitat, both permanent and temporary. Suitable BUOW burrows and foraging habitat exist around Route Alternative 1; however, no BUOW were detected within the 500-foot survey buffer around Route Alternative 1. No direct impacts are anticipated to occur to BUOW. Potentially significant adverse impacts to BUOW could result from construction and operation/maintenance of Route Alternative 1 if BUOW were to occupy burrows within the footprint prior to implementation of the project. Mitigation measures are provided in the event any BUOW are detected during preconstruction surveys, reducing impacts to less than significant.

Similar to the impacts described for the Proposed Action, the Route Alternative 1 would have potentially significant impacts to FTHL-occupied habitat running through the Yuha Desert Management Area. Mitigation measures are provided to compensate for the loss and/or degradation of FTHL habitat. The mitigation requires 263.8 acres to be provided for loss and/or degradation of FTHL habitat. Other mitigation measures provided would ensure minimizing potential impacts to FTHL.

The Route Alternative 1 would have impacts to other sensitive wildlife species by construction and maintenance of similar to those described previously for the Proposed Action and are considered potentially significant. Mitigation measures are provided in order to reduce those impacts to a less-than-significant level.

Similar to the Proposed Action, Route Alternative 1 intersects sensitive vegetation communities that are associated with wetland features. These vegetation communities have a potential to be

impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement. Mitigation measures are provided in order to reduce those impacts to a less-than-significant level.

Implementation of Route Alternative 1 has the potential to impact waters of the U.S. that would be subject to Federal protection. Depending on the final locations for the pole structures and access road, IID may be required to secure a permit from USACE to perform construction work within these areas. Mitigation measures are provided in order to reduce those impacts to a less-than-significant level.

The Route Alternative 1 would comply with applicable laws, regulations, and guidelines and, therefore, would not contribute substantially to a cumulative biological resources impact. Similarly, the cumulative actions within the geographic scope of the Route Alternative 1 will be required to comply with the legal frameworks set forth above, as well as others. Similar to the Route Alternative 1, the cumulative actions will be required to mitigate their impacts to a less than significant level. As such, the Route Alternative 1 would not result in a significant adverse cumulative noise impact under CEQA.

Noise

Direct and Indirect Effects

The Route Alternative 1 would be similar to the Proposed Action due to its similar location in a remote area without noise-sensitive receptors located in proximity to the alignment. As such, Route Alternative 1 would not result in direct or indirect adverse effects to noise under NEPA.

CEQA Significance Determination

The ground-borne vibrations associated with Route Alternative 1 would be similar to the Proposed Action and would not result in significant impacts. Route Alternative 1 would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the transmission lines. Given the attenuation of noise over distances, the effect on ambient noise levels would be low and would not be considered an impact contributing to a substantial permanent increase. Furthermore, the noise would not be noticeable to any sensitive receptors.

Because of the lack of sensitive noise receptors in this area, any changes to the noise environment would be minor and would incrementally contribute to changes in the noise environment. Project noise during operation would occur to a minimal degree and would be associated primarily with the low-frequency hum of transmission lines during wet or humid weather. Transmission line noise decreases quickly with distance away from the line. Given the sparsely developed nature of the corridor and the few sensitive receptors in the area, the cumulative effect of such noise is considered less than significant. For these reasons, the projects identified in Table 4-8 combined, with or without Route Alternative 1, would not result in a significant adverse cumulative noise impact under CEQA.

Air Quality

Direct and Indirect Effects

The Route Alternative 1 would have similar effects to construction and operational emissions associated with criteria pollutants, odors, and GHG as the Proposed Action. As such, Route Alternative 1 would not result in direct or indirect adverse effects to air quality under NEPA.

CEQA Significance Determination

Similar to the Proposed Action, operation of the transmission line under Route Alternative 1 would generate emissions considered to be negligible. Most of the construction that would be associated with Route Alternative 1 would be in remote and rural areas that should not affect sensitive receptors. A review of aerial photography surrounding the project area shows that this area has a very low residential population with no other sensitive receptors (i.e., schools, hospitals, residences) located near the ROW. The emissions generated from the construction of the electrical transmission system would not expose nearby sensitive receptors to substantial pollutant concentrations. Construction projects in the region would also generate short-term impacts; however, each of these projects is required to comply with specific regulatory requirements that are meant to minimize construction impacts on air quality. For this reason, construction activities associated with Route Alternative 1 combined with the projects listed in Table 4-9 would not result in a significant cumulative impact to air quality.

Operation emissions are considered to be negligible because the primary source of emissions would be from maintenance vehicles and would not conflict with or obstruct the applicable air quality plan. After construction of the Proposed Action, emissions associated with maintenance activities would be expected to be generated from the operation of maintenance vehicles driven

along the transmission line route to visually inspect for damages, and therefore are considered negligible—there would be very little in the form of additive air quality effects resulting. Therefore, Route Alternative 1 would not result in a considerable contribution to cumulatively significant air quality impacts under CEQA.

Hydrology and Water Quality

Direct and Indirect Effects

Route Alternative 1 would have similar effects to groundwater supplies and recharge, drainage, and surface runoff as the Proposed Action. As such, Route Alternative 1 would not result in direct or indirect adverse effects to hydrology and water quality under NEPA.

CEQA Significance Determination

As described for the Proposed Action, Route Alternative 1 would require small, isolated areas of impervious surfaces associated with the two substations and individual pole locations that would not generate substantial volumes of runoff. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project and would include BMPs. The project alignment is located through mainly vacant open space areas that are not served by storm water drainage systems and would create only minimal new areas of impervious surface that could generate new sources of runoff. The project does not include components that would typically generate substantial amounts of polluted runoff. Thus, Route Alternative 1 combined with cumulative projects would not result in a significant cumulative impact to water quality.

The project would not result in the creation of large volumes of wastewater or runoff. Any impacts to water quality would be temporary and minor and have only localized effects. For these reasons, the project would not contribute considerably to a cumulative impact to water quality or hydrology under CEQA.

Health and Safety/Hazardous Materials

Direct and Indirect Effects

Route Alternative 1 would have similar effects to safety and hazards as the Proposed Action. As such, Route Alternative 1 would not result in direct or indirect adverse effects to health and

safety/hazardous materials under NEPA.

CEQA Significance Determination

As described for the Proposed Action, typical use of hazardous materials may be required during construction activities. The operation of the expanded substations and new transmission line would not require use of new types of hazardous materials. IID would be required to adhere to all Federal, state, and local requirements regarding the handling and disposal of hazardous materials. IID would also implement its standard operational procedures and protocols, including BMPs, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. Therefore, Route Alternative 1 would result in less-than-significant impacts related to this issue.

Due to the distance of Alternative 1 from any schools or airports and the general location in undeveloped and sparsely populated areas, the project would not combine with other projects to result in cumulatively considerable public safety impacts to schools, airports, or emergency operations. The sparsely vegetated desert landscape surrounding the project is not considered to be a high risk for wildfires and the project is not near a wildland or urban interface. The project would have low potential for wildland fire impacts and other projects in the immediate area would also have a low risk due to the sparse desert vegetation. While projects as identified in Table 4-11 may include components that extend close to populated facilities that could result in cumulative impacts to health and safety, Route Alternative 1 is not located near any such facilities and would not contribute considerably to a significant cumulative impact under CEQA.

Cultural Resources

Direct and Indirect Effects

Route Alternative 1 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation, turns to follow a more easterly alignment for approximately 1.8 miles, and then turns west to rejoin approximately the same alignment as the Proposed Action.

Route Alternative 1 would not directly or indirectly affect any cultural resources. As such, implementation of the Route Alternative 1 would not result in direct or indirect effects to cultural resources under NEPA.

CEQA Significance Determination

There are no significant differences between the Proposed Action and Route Alternative 1. As such, the impacts do not vary significantly and follow approximately the same alignment. Route Alternative 1 would not divide an existing community. Route Alternative 1 would not contribute considerably to cumulative cultural resource impacts under CEQA.

Paleontological Resources

Direct and Indirect Effects

The Route Alternative 1 may have direct and indirect impacts during construction and operational repairs. In order to avoid impacts to paleontological resources, mitigation measure is provided, requiring consultation with grading and excavation contractors prior to commencement of ground-disturbing activities. The Route Alternative 1's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of the mitigation measure. With implementation of the mitigation measures PR-A through PR-C, the Route Alternative 1 would not result in incremental contribution to a cumulative paleontological resources impact under NEPA.

CEQA Significance Determination

In order to avoid impacts to paleontological resources, mitigation measures PR-A through PR-C are provided, requiring consultation with grading and excavation contractors prior to commencement of ground-disturbing activities.

Cumulatively, the various projects potentially could impact existing paleontological resources. However, each project is required to comply with the regulatory and professional requirements of the paleontological resources field to investigate, carefully evaluate, avoid, redesign project plans, and mitigate any impacts through excavation and data recovery. For these reasons, the Route Alternative 1, when combined with impact from past, present and reasonably foreseeable projects would not result in significant adverse cumulative paleontological resources impacts.

Socioeconomic Conditions and Environmental Justice

Direct and Indirect Effects

The Route Alternative 1 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation, turns to follow a more easterly alignment for approximately 1.8 miles, and then turns west to rejoin approximately the same alignment as the Proposed Action. As discussed above, Route Alternative 1 would follow the same approximate alignment as the Proposed Action. Therefore, Route Alternative 1 would not directly or indirectly affect an established community by inducing substantial population growth or displacing a substantial numbers of housing or existing people. While there would be increased employment during the construction period, the direct and indirect effects would be minimal and beneficial. There will be no employment associated with operation of the implementation of the Route 1 Alternative. As such, implementation, for construction and operations, of the Route Alternative 1 would not result in direct or indirect effects to socioeconomics.

Adverse effects related to environmental justice under this alternative would be the same as those described for the Proposed Action. No permanent or temporary environmental justice adverse effects would result under NEPA.

CEQA Significance Determination

Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would not induced substantial population growth during construction or operations.

Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of existing housing during construction or operations.

Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of people during construction or operations.

For these reasons, construction and operations, of the Route 1 Alternative would not result in direct or indirect effects to socioeconomics under CEQA.

Transportation and Traffic

Direct and Indirect Effects

The construction, operation, and maintenance of the Route Alternative 1 would be very similar to the Proposed Action. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. This impact would be less than significant.

The Route Alternative 1 would involve a similar amount of daily trips for construction workers and supply deliveries as the Proposed Action and would be over the same time period of 8 months. Operations and maintenance trips would also be similar. This use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards and the impact would be less than significant.

As with the Proposed Action, implementation of Route Alternative 1 would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations. Similar to the Proposed Action, Route Alternative 1 would not directly affect any public or private roadways in the project area or change any design features associated with these roadways. Route Alternative 1 would not affect existing emergency access in the vicinity of the project. No direct impacts to roadway facilities would occur. Short-term traffic associated with movement of construction equipment would be generated, but the number of vehicles would not be substantial and would only occur during project construction. Similar to the Proposed Action, construction, operation, and maintenance of Route Alternative 1 would have no effects that could impact alternative transportation modes, because the only traffic that would be generated would be during construction. For these reasons, Route Alternative 1 would have a very minor incremental effect on transportation and traffic in this area that would not be cumulatively considerable.

CEQA Significance Determination

The construction, operation, and maintenance of the Route Alternative 1 would be very similar to the Proposed Action. Access would be via the proposed transmission line ROW. Access to the work areas within the ROW would be via the ROW access road and from existing private roads in the project area. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. For these

reasons, the projects identified in Table 4-13 combined, with or without Route Alternative 1, would not result in a significant adverse cumulative traffic impact.

Route Alternative 1 would involve minor temporary increases in traffic that would only affect the immediate project vicinity and only over a limited period of time while the project is being constructed. Traffic and transportation impacts from Route Alternative 1 would primarily consist of those associated with construction activities. Once constructed, IID personnel would only travel to this area to conduct routine maintenance along the transmission line ROW. For these reasons, Route Alternative 1 would have a very minor incremental effect on transportation and traffic in this area, which would not be cumulatively considerable under CEQA.

Recreation

Direct and Indirect Effects

Route Alternative 1 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation, turns to follow a more easterly alignment for approximately 1.8 miles, and then turns west to rejoin approximately the same alignment as the Proposed Action. Therefore, similar to the Proposed Action, Route Alternative 1 would not result in a significant impact to recreation under NEPA.

CEQA Significance Determination

The Route Alternative 1 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation, turns to follow a more easterly alignment for approximately 1.8 miles, and then turns west to rejoin approximately the same alignment as the Proposed Action. Similar to the Proposed Action, the alternative transmission line corridor would be developed within the designated Utility Corridor “N” located on existing BLM lands, which are intended for such facilities and would not preclude the use of adjacent BLM lands for OHV recreation. Route Alternative 1 would develop a maintenance road that would create a corridor for OHV use. With regards to the substation facility site, similar to the Proposed Action, Alternative 1 would not increase the use of an existing recreational facility and does not include the construction of a recreational facility. Therefore, similar to the Proposed Action, Route Alternative 1 would not result in a significant impact to recreation under CEQA.

Special Designation

Direct and Indirect Effects

Similar to the Proposed Action, Route Alternative 1 would have direct effects on land use if it would cause effects at the time of implementation and within the area of proposed development. Route Alternative 1 would have indirect effects if it would cause reasonably foreseeable effects within the planned life of applicable adopted planning documentation or in geographic areas addressed in those documents removed from the Route Alternative 1 site.

Route Alternative 1 would have direct impacts to the FTHL Management Area. Therefore, similar to the Proposed Action, Route Alternative 1's incremental cumulative impact would be minimal and mitigated. Route Alternative 1 would not otherwise result in cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

Route Alternative 1 would have direct impacts to the FTHL Management Area. Therefore, similar to the Proposed Action, Route Alternative 1's incremental cumulative impact would be minimal and mitigated. Route Alternative 1 would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

Route Alternative 2

Land Use

Direct and Indirect Effects

Route Alternative 2 is located entirely within Imperial County along the boundary between primarily agricultural fields or fallow lands and vacant lands of the Yuha Desert. There are no significant differences between the Proposed Action and Route Alternative 2. Route Alternative 2 would be generally consistent with all applicable land use laws and regulations for lands within Imperial County, including within BLM-administered lands. No change of land use plans or policies would be required to implement the project, and the alignment of the proposed power poles would be within a utility corridor designated by BLM. As with the Proposed Action, this alternative would not result in a cumulative recreation impact under NEPA.

CEQA Significance Determination

As discussed earlier in this section, the majority of the Imperial County General Plan and zoning policies analyzed for the project would not be applicable to Route Alternative 2, as the policies direct future long-term land uses that Route Alternative 2 does not affect, given that the transmission lines impact only a small segment of the land used for the ROW. The combination of several of the cumulative projects as identified in Table 4-3 could result in cumulative land use impacts to lands designated for agricultural, government/special public, or within the FTHL Yuha Desert Management Area. The cumulative impacts to agricultural lands and the FTHL Yuha Desert Management Area are discussed below under the Agriculture and Biological Resources headings.

Route Alternative 2 is located entirely within Imperial County along the boundary between primarily agricultural fields or fallow lands and vacant lands of the Yuha Desert. There are no significant differences between the Proposed Action and Route Alternative 2. As such, the impacts do not vary significantly and follow approximately the same alignment. Route Alternative 2 would not divide an existing community. Route Alternative 2 would be generally consistent with all applicable land use laws and regulations for lands within Imperial County, including within BLM-administered lands. No change of land use plans or policies would be required to implement the project, and the alignment of the proposed power poles would be within a utility corridor designated by BLM. The minor inconsistencies between Route Alternative 2 and current land use designations include temporary use of agricultural land for construction purposes. As discussed in detail in Sections 3.1 and 3.2, these impacts would be minimal and generally temporary. Therefore, Route Alternative 2 would not contribute considerably to cumulative land use impacts to lands designated for agricultural, government/special public, or BLM use in the project area under CEQA.

Agriculture

Direct and Indirect Effects

Route Alternative 2 would only contribute incrementally to this cumulative impact. The permanent impact to farmlands from Route Alternative 2 totals approximately 0.02 acre. Negligible permanent impacts would occur at each pole site because of the small footprint for the poles (10-foot diameter each). No other aspects of Route Alternative 2 would permanently impact farmlands. Therefore, Alternative 2 would not result in direct and indirect cumulative significant impacts to agriculture under NEPA.

CEQA Significance Determination

Imperial County has historically supported a variety of agricultural uses. As the demand for housing and land in these areas continues to increase with the population increase, the pressure for conversion of farmland to urban uses is also increasing. It can be expected that, with population growth in the region, this development pressure would contribute to the overall loss of farmland. The combination of several of the cumulative projects as identified in Table 4-4 could result in cumulative impacts to agriculture.

Even though the cumulative loss of farmland is substantial throughout the region, Route Alternative 2 would only contribute incrementally to this cumulative impact. The permanent impact to farmlands from Route Alternative 2 totals approximately 0.02 acre. Negligible permanent impacts would occur at each pole site because of the small footprint for the poles (10-foot diameter each). No other aspects of Route Alternative 2 would permanently impact farmlands. Therefore, Alternative 2 would not contribute considerably to the potentially cumulative significant impact to agriculture under CEQA.

Soils and Geology

Direct and Indirect Effects

Construction of Route Alternative 2 would disturb new areas and expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the new and expanded substations. During all construction activities, standard BMPs and soil erosion control measures would be implemented to further reduce erosion potential. Once construction is complete, temporarily disturbed areas such as staging areas would be restored to their original condition and would minimize the potential for soil erosion. In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required by the UBC, CBC, and industry standards. Similar to the Proposed Action, the potential for geologic instability due to implementation of this alternative, including off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, would be less than significant. For these reasons, Route Alternative 2 would not result in direct or indirect cumulative geology and soils impact under NEPA.

CEQA Significance Determination

Route Alternative 2 is located throughout an area mostly surrounded by open space and generally not close to structures or areas commonly used by people. The slight route difference between the Proposed Action and Route Alternative 2 does not change the seismically active geologic setting that would affect the project. Route Alternative 2 would place transmission poles and substations in locations that are not near other structures or in immediate proximity to areas inhabited or frequently used by humans.

As described for the Proposed Action, construction of Route Alternative 2 would disturb new areas and expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the new and expanded substations. During all construction activities, standard BMPs and soil erosion control measures would be implemented to further reduce erosion potential. Once construction is complete, temporarily disturbed areas such as staging areas would be restored to their original condition and would minimize the potential for soil erosion. In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required by the UBC, CBC, and industry standards. Similar to the Proposed Action, the potential for geologic instability due to implementation of this alternative, including off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, would be less than significant. For these reasons, Route Alternative 2 would not contribute to a significant cumulative geology and soils impact under CEQA.

Visual Resources

Direct and Indirect Effects

Route Alternative 2 would not contribute to significant adverse changes to scenic views, aesthetics resources, or visual character of the area, given that the poles would follow the existing canal feature and, from a visual perspective, at the approximate divide between fallow agricultural lands and desert lands. Therefore, Route Alternative 2 would not direct or indirect cumulative impacts on visual resources under NEPA.

CEQA Significance Determination

As with the Proposed Action, Route Alternative 2 would also locate the transmission line in an area containing open desert and fallow agricultural land, though the middle portion of the

alignment would be in an area of active agricultural use. The Route Alternative 2 alignment would primarily affect views from eastbound I-8 to the southeast. The impact to views from I-8 would be different than the Proposed Action alignment in that it would impact only mid-range views of agricultural lands. The additional pole structures in the portion of the alignment that would be adjacent to the canal would increase visibility of the pole structures. From medium- and long-range perspectives, Route Alternative 2 would not contribute to significant adverse changes to scenic views, aesthetics resources, or visual character of the area, given that the poles would follow the existing canal feature and, from a visual perspective, at the approximate divide between fallow agricultural lands and desert lands. Therefore, Route Alternative 2 would not contribute considerably to a significant cumulative impact on visual resources under CEQA.

Biological Resources

Direct and Indirect Effects

For Route Alternative 2, potential impacts to special-status plants would be similar to those discussed for the Proposed Action. Mitigation would be required to reduce impacts to a less-than-significant level. Alternative 2 would be implemented in an area that contains habitat for BUOW and FTHL, along with a range of other sensitive and common species, including migratory species protected under the MBTA. Route Alternative 2 would further reduce the available 1% cap within the MA by 30.60 acres to leave 224.82 acres. For these reasons, implementation of Route Alternative 2 would have incremental impacts on biological resources in this area, but those impacts would not be cumulatively considerable with the implementation of the mitigation measures identified under NEPA.

CEQA Significance Determination

The geographic scope for considering cumulative biological impacts cannot be defined by jurisdictional or other political boundaries, as sensitive habitats and species can have widespread ranges and can vary for individual species. For this reason, the biological cumulative impact analysis includes the Yuha Management Area.

For Route Alternative 2, potential impacts to special-status plants would be similar to those discussed for the Proposed Action. Mitigation would be required to reduce impacts to a less-than-significant level. Alternative 2 would be implemented in an area that contains habitat for BUOW and FTHL, along with a range of other sensitive and common species, including migratory species protected under the MBTA. Other projects in the project region, such as

transmission line projects, power plants, and other infrastructure projects, affect these species to varying degrees depending on their location and magnitude. Alternative 2 would permanently remove a relatively small amount of habitat for these species in an area that is considered to be of high habitat value for both BUOW and FTHL. However, mitigation measures have been proposed that would compensate for the loss of habitat and limit potential direct and indirect impacts. With respect to FTHL, impacts to the Yuha Management Area would still be within the 1% impact allowance set forth in the FTHLRMS by the Interagency Coordinating Committee. Existing disturbance within the MA totals 180.01 acres. Of the 752 acres that is the 1% cap, 572 acres remains. The cumulative projects in Table 4-7 combined would reduce the available acreage within the 1% cap by 316.5 acres, to leave 255.42 acres. Route Alternative 2 would further reduce the available 1% cap within the MA by 30.60 acres to leave 224.82 acres. For these reasons, implementation of Route Alternative 2 would have incremental impacts on biological resources in this area, but those impacts would not be cumulatively considerable with the implementation of the mitigation measures identified under CEQA.

Noise

Direct and Indirect Effects

Impacts of Route Alternative 2 would be similar to Route Alternative 1 and the Proposed Action due to its similar location in a remote area without noise-sensitive receptors located in proximity. Route Alternative 2 would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the transmission lines. Given the attenuation of noise over distances, the effect on ambient noise levels would be low and not be considered an impact contributing to a substantial permanent increase. Furthermore, the noise would not be noticeable to any sensitive receptors. For these reasons, the projects identified in Table 4-8 combined, with or without Route Alternative 2, would not result in direct or indirect cumulative noise impact under NEPA.

CEQA Significance Determination

Impacts of Route Alternative 2 would be similar to Route Alternative 1 and the Proposed Action due to its similar location in a remote area without noise-sensitive receptors located in proximity. Route Alternative 2 would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the transmission lines. Given the attenuation of noise over distances, the effect on ambient noise levels would be low and not be considered an impact

contributing to a substantial permanent increase. Furthermore, the noise would not be noticeable to any sensitive receptors.

Because of the lack of sensitive noise receptors in this area, any changes to the noise environment would be minor and incrementally contribute to changes in the noise environment. Project noise during operation would occur to a minimal degree and would be associated primarily with the low-frequency hum of transmission lines during wet or humid weather. Transmission line noise decreases quickly with distance away from the line. Given the sparsely developed nature of the corridor and the few sensitive receptors in the area, the cumulative effect of such noise is considered less than significant. For these reasons, the projects identified in Table 4-8 combined, with or without Route Alternative 2, would not result in a significant adverse cumulative noise impact under CEQA.

Air Quality

Direct and Indirect Effects

Similar to the Proposed Action, the operation of the transmission line under Route Alternative 2 would generate emissions considered to be negligible. Operation emissions are considered to be negligible because the primary source of emissions would be from maintenance vehicles used by workers to patrol the transmission line routes to visually inspect for damages and would not conflict with or obstruct the applicable air quality plan. Therefore, air quality impacts from operation of the Proposed Action would be less than significant.

As indicated in Table 3.7-6, daily construction emissions are well below the ICAPCD significance thresholds for construction activities; therefore, the proposed project is considered to have less-than-significant air quality impacts. Similarly, annual emissions are well below the GCR *de minimis* level for the SSAB; therefore, under Route Alternative 2, the project is considered exempt from performing a comprehensive General Conformity Analysis and Determination, and would be considered to conform to the SIP. Although construction emissions will not cause significant air quality impact, implementation of BCMPs and adherence to ICAPCD Regulation VIII, Fugitive Dust, as discussed in Section 3.7, will further reduce fugitive dust emissions.

Route Alternative 2 runs through rural and undeveloped land away from all sensitive receptors; therefore, any odor emitted would most likely only be detected by workers. Therefore, the construction and operation of this alternative would not create objectionable odors affecting a

substantial number of people. Thus, odor impacts from construction and operation of the Proposed Action would be less than significant.

The temporary increase of emissions of GHG associated with construction activities for Route Alternative 2 will not significantly contribute incrementally to global climate change as it does not result in substantial net increases in GHGs beyond the construction phase of the project.

For the reasons provided above, Route Alternative 2 would not result in direct or indirect cumulatively significant air quality impacts under NEPA.

CEQA Significance Determination

Similar to the Proposed Action and Route Alternative 1, the operation of the transmission line under Route Alternative 2 would generate emissions considered to be negligible. Most of the construction that would be associated with Route Alternative 2 would be in remote and rural areas that should not affect sensitive receptors. A review of aerial photography for the area surrounding the project shows that this area has a very low residential population with no other sensitive receptors (i.e., schools, hospitals, residences) located near the ROW. The emissions generated from the construction of the electrical transmission system would not expose nearby sensitive receptors to substantial pollutant concentrations. Construction projects in the region would also generate short-term impacts; however, each of these projects is required to comply with specific regulatory requirements that are meant to minimize construction impacts on air quality. For this reason, construction activities associated with Route Alternative 2 combined with the projects listed in Table 4-9 would not result in a significant cumulative impact to air quality.

Operation emissions are considered to be negligible because the primary source of emissions would be from maintenance vehicles and would not conflict with or obstruct the applicable air quality plan. After construction of the Proposed Action, emissions associated with maintenance activities would be expected to be generated from the operation of maintenance vehicles driven along the transmission line route to visually inspect for damages, and therefore are considered negligible. There would be very little in the form of additive air quality effects resulting. Therefore, Route Alternative 2 would not result in a considerable contribution to cumulatively significant air quality impacts under CEQA.

Hydrology and Water Quality

Direct and Indirect Effects

Route Alternative 2 would require small, isolated areas of impervious surfaces associated with the two substations and individual pole locations that would not generate substantial volumes of runoff. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project and would include BMPs. Route Alternative 2 would not result in substantial temporary or permanent increases in water runoff. Route Alternative 2 does not include any housing, permanent or temporary, as part of the scope of activity. Route Alternative 2 would not result in the placement of people in areas subject to flooding. For these reasons, the project would not contribute considerably to direct or indirect cumulative impacts to water quality or hydrology under NEPA.

CEQA Significance Determination

Similar to that described for the Proposed Action, Route Alternative 2 would require small, isolated areas of impervious surfaces associated with the two substations and individual pole locations that would not generate substantial volumes of runoff. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project and would include BMPs. The project alignment is located through mainly vacant open space areas that are not served by storm water drainage systems and would create only minimal new areas of impervious surface that could generate new sources of runoff. The project does not include components that would typically generate substantial amounts of polluted runoff. Thus, Route Alternative 2 combined with cumulative projects would not result in a significant cumulative impact to water quality.

The project would not result in the creation of large volumes of wastewater or runoff. Any impacts to water quality would be temporary and minor and have only localized effects. For these reasons, the project would not contribute considerably to a cumulative impact to water quality or hydrology under CEQA.

Health and Safety/Hazardous Materials

Direct and Indirect Effects

Route Alternative 2 would have similar effects to safety and hazards as the Proposed Action. As such, Route Alternative 2 would not result in direct or indirect adverse effects to health and safety/hazardous materials.

CEQA Significance Determination

As described for the Proposed Action, typical use of hazardous materials may be required during construction activities. The operation of the expanded substations and new transmission line would not require use of new types of hazardous materials. IID would be required to adhere to all Federal, state, and local requirements regarding the handling and disposal of hazardous materials. IID would also implement its standard operational procedures and protocols, including BMPs, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. Therefore, Route Alternative 2 would result in less-than-significant impacts related to this issue under CEQA.

The Route Alternative 2 alignment or substation sites are not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Due to the distance of Alternative 2 from any schools or airports and general location in undeveloped and sparsely populated areas, the project would not combine with other projects to result in cumulatively considerable public safety impacts to schools, airports, or emergency operations. The sparsely vegetated desert landscape surrounding the project is not considered to be a high risk for wildfires and the project is not near a wildland or urban interface. The project would have low potential for wildland fire impacts and other projects in the immediate area would also have a low risk due to the sparse desert vegetation. While projects as identified in Table 4-11 may include components that extend close to populated facilities that could result in cumulative impacts to health and safety, Route Alternative 2 is not located near any such facilities and would not contribute considerably to a significant cumulative impact under CEQA.

Cultural Resources

Direct and Indirect Effects

Route Alternative 2 would not contribute to significant adverse changes to cultural resources. There are no significant differences between the Proposed Action and Route Alternative 2. Therefore, Route Alternative 2 would not direct or indirect cumulative impacts on cultural resources under NEPA.

CEQA Significance Determination

As with the Proposed Action, Route Alternative 2 would also locate the transmission line in an area containing open desert and fallow agricultural land, though the middle portion of the alignment would be in an area of active agricultural use. Route Alternative 2 would not contribute to significant adverse changes to cultural resources. Therefore, Route Alternative 2 would not contribute considerably to a significant cumulative impact on cultural resources under CEQA.

Paleontological Resources

Direct and Indirect Effects

The Route Alternative 2 may have direct and indirect impacts during construction and operational repairs. In order to avoid impacts to paleontological resources, mitigation measure is provided, requiring consultation with grading and excavation contractors prior to commencement of ground-disturbing activities. The Route Alternative 2's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of the mitigation measure. With implementation of the mitigation measures PR-A through PR-C, the Route Alternative 2 would not result in incremental contribution to a cumulative paleontological resources impact under NEPA.

CEQA Significance Determination

In order to avoid impacts to paleontological resources, mitigation measures PR-A through PR-C are provided, requiring consultation with grading and excavation contractors prior to commencement of ground-disturbing activities.

Cumulatively, the various projects potentially could impact existing paleontological resources. However, each project is required to comply with the regulatory and professional requirements of the paleontological resources field to investigate, carefully evaluate, avoid, redesign project plans, and mitigate any impacts through excavation and data recovery. For these reasons, the Route Alternative 2, when combined with impact from past, present and reasonably foreseeable projects would not result in significant adverse cumulative paleontological resources impacts.

Socioeconomic Conditions and Environmental Justice

Direct and Indirect Effects

The Route Alternative 2 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation and then turns to follow the same easterly alignment as Route Alternative 1 for approximately 1.8 miles. At this point, it continues on a more easterly alignment to follow along the west side of the Westside Main Canal until it reaches a point approximately 0.7 mile north of I 8 where it turns to the west to join the Proposed Action and Route Alternative 1 alignments.

Route Alternative 2 would follow the same approximate alignment as the Proposed Action. Therefore, Route Alternative 2 would not directly or indirectly affect an established community by inducing substantial population growth or displacing a substantial numbers of housing or existing people. While there would be increased employment during the construction period, the direct and indirect effects would be minimal and beneficial. There will be no employment associated with operation of the implementation of the Route 2 Alternative. As such, implementation, for construction and operations, of the Route Alternative 2 would not result in direct or indirect effects to socioeconomics.

Adverse effects related to environmental justice under this alternative would be the same as those described for the Proposed Action. No permanent or temporary environmental justice adverse effects would result.

CEQA Significance Determination

Route Alternative 2 would follow the same approximate alignment as the Proposed Action and would not induced substantial population growth during construction or operations.

Route Alternative 2 would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of existing housing during construction or operations.

Route Alternative 2 would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of people during construction or operations.

For the reasons stated above, the Route Alternative 2 would not result in incremental cumulative impacts related to socioeconomics under CEQA.

Transportation and Traffic

Direct and Indirect Effects

The construction, operation, and maintenance of the Route Alternative 2 would be very similar to the Proposed Action. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. This impact would be less than significant.

The Route Alternative 2 would involve a similar amount of daily trips for construction workers and supply deliveries as the Proposed Action and would be over the same time period of 8 months. Operations and maintenance trips would also be similar. This use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards and the impact would be less than significant.

As with the Proposed Action, implementation of Route Alternative 2 would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations. Similar to the Proposed Action, Route Alternative 2 would not directly affect any public or private roadways in the project area or change any design features associated with these roadways. Route Alternative 2 would not affect existing emergency access in the vicinity of the project. No direct impacts to roadway facilities would occur. Short-term traffic associated with movement of construction equipment would be generated, but the number of vehicles would not be substantial and would only occur during project construction. Similar to the Proposed Action, construction, operation, and maintenance of Route Alternative 2 would have no effects that could impact alternative transportation modes, because the only traffic that would be generated would be during construction. For these reasons, Route Alternative 2 would have a very minor incremental

effect on transportation and traffic in this area that would not be cumulatively considerable under NEPA.

CEQA Significance Determination

The construction, operation, and maintenance of the Route Alternative 2 would be very similar to the Proposed Action. Access would be via the proposed transmission line ROW. Access to the work areas within the ROW would be via the ROW access road and from existing private roads in the project area. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. For these reasons, the projects identified in Table 4-13 combined, with or without Route Alternative 2, would not result in a significant adverse cumulative traffic impact.

Route Alternative 2 would involve minor temporary increases in traffic that would only affect the immediate project vicinity and only over a limited period of time while the project is being constructed. Traffic and transportation impacts from Alternative 2 would primarily consist of those associated with construction activities. Once constructed, IID personnel would only travel to this area to conduct routine maintenance along the transmission line ROW. For these reasons, the project was found to have less-than-significant impacts on emergency access under CEQA.

Recreation

Direct and Indirect Effects

Route Alternative 2 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation and then turns to follow the same easterly alignment as Route Alternative 1 for approximately 1.8 miles. Therefore, similar to the Proposed Action, Alternative 2 Transmission Line Corridor would not result in a significant impact to recreation under NEPA.

CEQA Significance Determination

Route Alternative 2 initially follows the same route from the IV Substation as the Proposed Action alignment as it exits the IV Substation and then turns to follow the same easterly alignment as Route Alternative 1 for approximately 1.8 miles. At this point, it continues on a more easterly alignment to follow along the west side of the Westside Main Canal until it reaches

a point approximately 0.7 mile north of I-8 where it turns to the west to join the Proposed Action and Route Alternative 1 alignments. The alternative transmission line corridor would be developed within the designated Utility Corridor “N” located on existing BLM lands, which are intended for such facilities and would not preclude the use of adjacent BLM lands for OHV recreation. In addition, Route Alternative 2 would develop access roads that would create a corridor for OHV use. With regards to the substation facility site, similar to the Proposed Action, Route Alternative 2 would not increase the use of an existing recreational facility and does not include the construction of a recreational facility. Therefore, similar to the Proposed Action, Route Alternative 2 would not result in a significant impact to recreation under CEQA.

Special Designation

Direct and Indirect Effects

Similar to the Proposed Action, Route Alternative 2 would have direct effects on land use if it would cause effects at the time of implementation and within the area of proposed development. Route Alternative 2 would have indirect effects if it would cause reasonably foreseeable effects within the planned life of applicable adopted planning documentation or in geographic areas addressed in those documents removed from the Route Alternative 2 site.

Route Alternative 2 would have direct impacts to the FTHL Management Area. Therefore, similar to the Proposed Action, Route Alternative 2’s incremental cumulative impact would be minimal and mitigated. Route Alternative 2 would not otherwise result in cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

Route Alternative 2 would have direct impacts to the FTHL Management Area. Therefore, similar to the Proposed Action, Route Alternative 2’s incremental cumulative impact would be minimal and mitigated. Route Alternative 2 would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

Reduced Liebert Substation Alternative

Land Use

Direct and Indirect Effects

As described in Section 2.5, the Reduced Liebert Substation Alternative would reduce the proposed Liebert Substation in size to 400 feet by 400 feet. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The Reduced Liebert Substation Alternative would re-position the smaller substation north of the preferred location, immediately south of the point at which the transmission line makes a right-angled turn from a north-south orientation to an east-west orientation. This alternative would reduce the area of disturbance within the FTHL MA by 9.79 acres, to 4.59 acres of disturbance associated with the Liebert Substation.

Under the Reduced Liebert Substation, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action. Only the Liebert Substation would be reduced in size and re-positioned north of the preferred location. As such, the project would be located along an existing boundary and would not result in a new feature that would divide an established community or result in a future change to the area. Land use policies relevant to the Reduced Liebert Substation Alternative would be the same as the Proposed Action's land use policies listed in Table 3.1-1. As such, the Reduced Liebert Substation Alternative would not require any change in land use designations and would have no potential to result in permanent adverse impacts to land use. Additionally, no conflicts with the FLMPA, CDCA, or other applicable land use plans would result. Therefore, implementation of the Reduced Liebert Substation Alternative would not result in cumulative direct or indirect effects to land use under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not impact an established community. The Reduced Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

Agriculture

Direct and Indirect Effects

The transmission line route for the Reduced Liebert Substation Alternative would remain the same as the Proposed Action and would reduce the proposed Liebert Substation in size. Direct adverse effects associated with placement of the transmission line poles and the maintenance road would occur to approximately 0.05 acre of farmlands (0.01 acre of Farmlands of Statewide Importance and 0.04 acre of Prime Farmland). Adverse effects to farmland would be less in comparison to the Proposed Action. As these adverse effects only disturb a relatively small area, farming operations around the proposed facilities would continue. The Reduced Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

Since the transmission line route for the Reduced Liebert Substation Alternative would remain the same as the Proposed Action and would reduce the proposed Liebert Substation in size. Direct adverse effects associated with placement of the transmission line poles and the maintenance road would occur to approximately 0.05 acre of farmlands (0.01 acre of Farmlands of Statewide Importance and 0.04 acre of Prime Farmland). The Reduced Liebert Substation Alternative would not permanently change the existing land use within the proposed transmission line ROW. Other than the direct physical changes noted above, no other changes would occur from the Reduced Liebert Substation Alternative that would permanently change the existing land use within the project alignment or in adjacent areas. The Reduced Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

Soils and Geology

Direct and Indirect Effects

As with the Proposed Action, the Reduced Liebert Alternative would have the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides would be reduced with proper engineering and design of transmission poles and substation components in accordance with all applicable seismic standards. Construction of the Reduced Liebert Alternative would disturb new areas and

expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the new and expanded substations; however, soil disturbance would generally occur in small isolated areas and the majority of these areas would be covered in concrete, restored to their original condition, or leveled in such a manner that does not increase erosion potential. The substations would both be located on relatively flat land and would not require substantial earthwork that could induce or accelerate geologic hazards. Therefore, the potential for geologic instability due to the Reduced Liebert Alternative, including off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, would not result in adverse effects. Proper engineering and distance from other structures and human activity would not create a substantial risk to life or property. Additionally, no adverse impact to the capability of the soils to support waste water disposal would occur. Therefore, there would be no cumulative direct or indirect adverse effects to soils and geology.

CEQA Significance Determination

Though geology is a regional issue, with geologic features sometimes spanning very large areas, impacts to soils and geology are typically site-specific and are unaffected by actions not occurring directly on them. The geographic scope for considering cumulative impacts to geology and soils is considered to be the areas immediately adjacent to the project alignment, as any impacts of the Reduced Liebert Alternative would be site-specific. Cumulative projects could individually contribute to creating unstable geologic conditions that might result in conditions such as ground failure, liquefaction, erosion, and other geologic hazards. However, these conditions are typically confined to the general project area and do not have extensive areas of effect. To be cumulatively considerable, project-generated hazards would have to occur in relatively close proximity to other projects, with similar geologic and soil conditions.

The Reduced Liebert Alternative is located throughout an area mostly surrounded by open space and generally not close to structures or areas commonly used by people. Cumulative projects are not anticipated to occur within the areas immediately adjacent to the project alignment or substations. Permanent project disturbance to geology or soils would occur immediately surrounding the substations and pole locations, and along access roads. Project impacts were found to be less than significant and would not extend into areas where the impacts could combine with other development to contribute to a cumulative impact.

In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required

by the UBC, CBC, and industry standards. For these reasons, the Reduced Liebert Alternative would not contribute to a significant cumulative geology and soils impact under CEQA.

Visual Resources

Direct and Indirect Effects

Under this alternative, the proposed Liebert Substation would be reduced in size to 400 feet by 400 feet, the transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The Reduced Liebert Substation Alternative would involve re-positioning the smaller substation north of the preferred location, immediately south of the point at which the transmission line makes a right-angled turn from a north-south orientation to an east-west orientation.

The Reduced Liebert Substation Alternative's transmission line poles would primarily affect views to the southeast from travelers eastbound on I-8. However, much of the natural character and scenic quality of the area has been reduced by existing transmission towers, desert lands disturbed by now-fallow agricultural plots, and off-highway vehicle use. Additionally, lighting associated with the proposed Reduced Liebert Substation Alternative would be shielded and directed downward.

Existing cumulative projects Imperial Valley Substation, Imperial Valley Rosita Line, Intergen Line, Sempra Line, and Southwest Power Link would not substantially degrade the character of the site or its surroundings. Finally, all projects listed in Table 4-6 would not produce a substantial amount of light and glare, as no significant source of light or glare is proposed, or the project will otherwise comply with the County lighting ordinance. As such, the Reduced Liebert Substation Alternative would not result in cumulative direct or indirect adverse effects to visual resources under NEPA.

CEQA Significance Determination

The alignment of the Reduced Liebert Substation Alternative is generally through areas with minimal potential for highly sensitive viewers. The alignment passes through areas of fallow agricultural fields and desert lands that do not include a large number of people who would view the project. Only the portion of I-8 between the San Diego County line and SR-98 is classified as eligible for designation as a State Scenic Highway and is a minimum of approximately 14 miles west of the project site. Therefore, no impact to a State Scenic Highway would result from the

Proposed Action. The alignment does not parallel substantial transportation corridors that would afford views to a large number of motorists. Similar lighting that is shielded and directed downward would be installed at the proposed Liebert Substation, which is in close proximity to the IV Substation. Construction activities for the Reduced Liebert Substation Alternative would only occur during daylight hours. Though there are many cumulative projects that are altering the visual environment of the region, the Reduced Liebert Substation Alternative would not contribute considerably to a significant cumulative impact under CEQA on visual resources because of its location in remote areas with minimal viewers.

Biological Resources

Direct and Indirect Effects

The Reduced Liebert Substation Alternative would reduce the proposed Liebert Substation in size to 400 feet by 400 feet. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The Reduced Liebert Substation Alternative would re-position the smaller substation north of the preferred location, immediately south of the point at which the transmission line makes a right-angled turn from a north-south orientation to an east-west orientation. This alternative would reduce the area of disturbance within the FTHL MA by 9.79 acres, to 4.59 acres of disturbance associated with the Liebert Substation. As such, potential impacts to biological resources for the Reduced Liebert Substation Alternative would be similar to those discussed for the Proposed Action.

Special-Status Plants

Potential impacts under the Reduced Liebert Substation Alternative to special-status plants would be similar to those discussed for the Proposed Action. Thurber's pilostyles was detected as a parasitic plant on indigo bush at two locations within the BRSA. Two of these sites were located within the buffer area of the Reduced Liebert Substation Alternative, and one site was located within the footprint of the existing Imperial Valley Substation. Ribbed crypthantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Reduced Liebert Substation Alternative alignment. Even though the CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very endangered" in California, Mitigation Measure BIO-A would be required to reduce impacts to a less-than-significant level.

BUOW

Potentially significant direct and indirect impacts to BUOW could result from construction and operation/maintenance of the Reduced Liebert Substation Alternative if BUOW were to occupy burrows within the footprint prior to implementation of the project. Per CBOC protocol preconstruction surveys will be conducted prior to any ground-disturbing activities. The entire project footprint will be walked and surveyed for BUOW. Suitable habitat within 150 meters of the ROW will also be surveyed. Active burrows will be flagged. If any BUOW are detected during preconstruction surveys, Mitigation Measure BIO-B will be implemented to reduce the potential impacts to a less than-significant level.

Flat-Tailed Horned Lizards

Direct permanent and temporary impacts to FTHL-occupied habitat would occur because a portion of the Reduced Liebert Substation Alternative runs through the Yuha Management Area. Since a portion of the Reduced Liebert Substation Alternative runs through an FTHL MA, mitigation for direct permanent impacts would be required. As indicated in Table 3.5-3, 201.77 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. However, only a portion of these acreages, consisting of dirt access roads, transmission pole locations, staging areas, etc., would be permanently impacted. Mitigation measures BIO-C and BIO-D would be required to reduce impacts to a less-than-significant level.

Mountain Plover

The Reduced Liebert Substation Alternative primarily parallels the Proposed Action alignment and results in no impacts to the plover. The native Yuha Desert does not support mountain plover which prefer active agricultural fields. The absence of the MOPL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to MOPL from construction and operation/maintenance of the Reduced Liebert Substation Alternative. However, since the MOPL is proposed for federal listing, USFWS may require conservation measures to address loss of foraging habitat. This would be discussed in coordination with USFWS, and any conservation measures would be determined at that point.

Southwestern Willow Flycatcher

The Reduced Liebert Substation Alternative primarily parallels the Proposed Action alignment and impacts would be very similar. Suitable SWFL foraging habitat exists around the Reduced

Liebert Substation Alternative; however, no SWFL were detected within the 1,000-foot survey buffer around the Reduced Liebert Substation Alternative. The absence of the SWFL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to SWFL from construction and operation/maintenance of the Reduced Liebert Substation Alternative. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

Impacts to other sensitive wildlife species by construction and maintenance of the Reduced Liebert Substation Alternative would be similar to those described previously for the Proposed Action and are considered potentially significant. Both permanent and temporary indirect impacts may include habitat fragmentation, edge effects, increased noise levels, changes in hydrology, introduction of exotic species, artificial lighting, fugitive dust, alternation of fire regimes, increased predation rates, avian collision and electrocution, and others. Implementation of Mitigation Measure BIO-E is required to reduce those impacts to a less-than-significant level.

Habitats

Similar to the Proposed Action, the Reduced Liebert Substation Alternative intersects sensitive vegetation communities that are associated with wetland features. These vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement.

As indicated in Figure 3.5-7, implementation of the Reduced Liebert Substation Alternative has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. Depending on the final locations for the pole structures and access road, IID may be required to secure a permit from USACE to perform construction work within these areas. If a permit is required, implementation of permit conditions would be required to address impacts to these areas. This is a potentially significant impact and mitigation would be required. Mitigation measure BIO-G would be required to reduce impacts to a less-than-significant level.

For the reasons stated above, the Reduced Liebert Substation Alternative would not result in direct and indirect cumulative impacts related to biological resources under NEPA.

CEQA Significance Determination

Special-Status Plants

As discussed above, potential impacts under the Reduced Liebert Substation Alternative to special-status plants would be similar to those discussed for the Proposed Action. Thurber's pilostyles was detected as a parasitic plant on indigo bush at two locations within the BRSA. Two of these sites were located within the buffer area of the Reduced Liebert Substation Alternative, and one site was located within the footprint of the existing Imperial Valley Substation. Ribbed crypthantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Reduced Liebert Substation Alternative alignment. Even though the CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very endangered" in California, Mitigation measure BIO-A would be required to reduce impacts to a less-than-significant level.

BUOW

As previously discussed, potentially significant direct and indirect impacts to BUOW could result from construction and operation/maintenance of the Reduced Liebert Substation Alternative if BUOW were to occupy burrows within the footprint prior to implementation of the project. Per CBOC protocol preconstruction surveys will be conducted prior to any ground-disturbing activities. The entire project footprint will be walked and surveyed for BUOW. Suitable habitat within 150 meters of the ROW will also be surveyed. Active burrows will be flagged. If any BUOW are detected during preconstruction surveys, Mitigation Measure BIO-B will be implemented to reduce the potential impacts to a less than-significant level.

Flat-Tailed Horned Lizards

As discussed above, direct permanent and temporary impacts to FTHL-occupied habitat would occur because a portion of the Reduced Liebert Substation Alternative runs through the Yuha Management Area. Since a portion of the Reduced Liebert Substation Alternative runs through an FTHL MA, mitigation for direct permanent impacts would be required. As indicated in Table 3.5-3, 201.77 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. However, only a portion of these acreages, consisting of dirt access roads,

transmission pole locations, staging areas, etc., would be permanently impacted. Mitigation measures BIO-C and BIO-D would be required to reduce impacts to a less-than-significant level.

Mountain Plover

As previously discussed, the Reduced Liebert Substation Alternative primarily parallels the Proposed Action alignment and results in no impacts to the plover. The native Yuha Desert does not support mountain plover which prefer active agricultural fields. Any disturbance to migratory foraging habitat on adjacent agricultural lands would be of short duration and sufficient distance to be discountable.

Southwestern Willow Flycatcher

As previously discussed, the Reduced Liebert Substation Alternative primarily parallels the Proposed Action alignment and impacts would be very similar. Suitable SWFL foraging habitat exists around the Reduced Liebert Substation Alternative; however, no SWFL were detected within the 1,000-foot survey buffer around the Reduced Liebert Substation Alternative. The absence of the SWFL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to SWFL from construction and operation/maintenance of the Reduced Liebert Substation Alternative. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

As discussed above, impacts to other sensitive wildlife species by construction and maintenance of the Reduced Liebert Substation Alternative would be similar to those described previously for the Proposed Action and are considered potentially significant. Both permanent and temporary indirect impacts may include habitat fragmentation, edge effects, increased noise levels, changes in hydrology, introduction of exotic species, artificial lighting, fugitive dust, alternation of fire regimes, increased predation rates, avian collision and electrocution, and others. Implementation of Mitigation Measure BIO-E is required to reduce those impacts to a less-than-significant level.

Similar to the Proposed Action, the Reduced Liebert Substation Alternative intersects sensitive vegetation communities that are associated with wetland features. These vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and

implement conditions associated with that agreement. This is a potentially significant impact and mitigation is required. Mitigation measure BIO-F would be required to reduce impacts to a less-than-significant level.

Implementation of the Reduced Liebert Substation Alternative has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. Depending on the final locations for the pole structures and access road, IID may be required to secure a permit from USACE to perform construction work within these areas. If a permit is required, implementation of permit conditions would be required to address impacts to these areas. This is a potentially significant impact and mitigation would be required. Mitigation measure BIO-G would be required to reduce impacts to a less-than-significant level.

The Reduced Liebert Substation Alternative would have similar impacts as described for the Proposed Action. Portions of the project site are within a management area for FTHL (including FTHL territories) and has suitable breeding habitat on-site. FTHL have large home ranges for lizards their size and have been shown in past studies to have a mean home range of approximately 8.8 acres for males within the Yuha Desert (Miller 1999). The area would constitute a local movement or dispersal corridor for the species within the Yuha Desert, but it does not provide a regional corridor between management areas. Furthermore, the only permanent facilities would be the 16-foot-wide maintenance road and the monopoles, which the FTHL could easily travel across (road) or around (poles). No major wildlife nursery sites were identified within the Proposed Action; however, numerous desert reptile, bird, and mammalian species breed in the vicinity. Some of these species, including FTHL, loggerhead shrike, BUOW, and Gila woodpecker, are considered sensitive species. These species breed or potentially breed in the vicinity of the alignment ROW and 1,000-foot survey buffer. Both permanent and temporary direct impacts would result from implementation of the Reduced Liebert Substation Alternative as discussed previously. Mitigation measures described above for BUOW, FTHL, and other special-status species would adequately reduce these impacts to a less-than-significant level.

There are no local policies or ordinances involving biological resources that would be relevant to this project. No impacts would result.

A number of sensitive species, including BUOW, FTHL, loggerhead shrike, northern harrier, Gila woodpecker, and others that are covered by the Imperial Valley NCCP/HCP, would potentially be impacted. However, this plan has not yet been finalized and adopted. Mitigation measures listed previously would address these potential impacts to covered species.

Noise

Direct and Indirect Effects

As with the Proposed Action, the Reduced Liebert Substation Alternative contains no noise-sensitive receptors located in proximity to the proposed construction areas that would experience construction noise levels exceeding the County Noise Ordinance limits. The nearest structures are located more than 1,000 feet from proposed construction activities. Therefore, any structures in proximity to the project site are at sufficient distances that any project vibrations would not be perceptible. Thus, the FTA-recommended vibration standard and threshold of architectural damage for conventional structures would not be exceeded. Additionally, construction noise levels would naturally attenuate with distance to not exceed the allowable construction noise level limits under the Imperial County Noise Ordinance at the nearest residence during daytime activities. The Reduced Liebert Substation Alternative would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the hum of the transmission lines. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to noise under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative site is remotely located with no noise-sensitive receptors in proximity to the sites to be affected by project construction and/or operational noise. The proposed facilities would temporarily contribute to ambient noise levels during construction. Construction equipment could generate noise levels up to 85 dBA L_{eq} at 50 feet from the center of the each work area. However, construction noise levels would naturally attenuate with distance to not exceed the allowable construction noise level limits under the Imperial County Noise.

Operational noise would be negligible. Because of the lack of sensitive noise receptors in the area and the fact that cumulative projects are not close enough to one another to add to the noise environment, any changes to the noise environment would be minor. Project noise during operation would occur to a minimal degree and would be associated primarily with the low-

frequency hum of transmission lines during wet or humid weather. Transmission line noise decreases quickly with distance away from the line.

Cumulative projects are not located within the immediate vicinity of the Reduced Liebert Substation Alternative site and would be outside of the geographic scope of the consideration of cumulative noise impacts. Given the sparsely developed nature of the corridor and geographic scope of this cumulative analysis, few sensitive noise receptors in the area, and the distance between the Reduced Liebert Substation Alternative and other cumulative projects that precludes noise from combining, cumulative noise impacts are considered less than significant. Therefore, construction (short-term) and operational (long-term) noise generated by the Reduced Liebert Substation Alternative would not contribute to cumulative noise impacts because the projects are spaced far enough apart that the noise generated by one project will not substantially combine with the noise of another project.

Air Quality

Direct and Indirect Effects

As with the Proposed Action, operation of the Reduced Liebert Substation Alternative would generate negligible emissions because the primary source of emissions would be from maintenance vehicles used by workers to patrol the transmission line routes to visually inspect for damages and thus, would not conflict with or obstruct the applicable air quality plan. The majority of air pollutants would be generated during construction activities and daily construction emissions would be below the ICAPCD significance thresholds. Implementation of BCMPs and adherence to ICAPCD Regulation VIII, Fugitive Dust, would further reduce fugitive dust emissions. Further, most of the proposed construction is in remote and rural areas that should not affect sensitive receptors. Additionally, the temporary increase of emissions of GHG associated with construction activities would not significantly contribute incrementally to global climate change as it does not result in substantial net increases in GHGs beyond the construction phase of the project. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to air quality under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative and other cumulative projects as listed below in Table 4-9 would add to exhaust emissions and particulates during construction periods. As indicated in Table 3.7-6, daily construction emissions are well below the ICAPCD significance

thresholds for construction activities. Further, annual emissions are well below the GCR *de minimis* level for the SSAB; therefore, the Reduced Liebert Substation Alternative is considered exempt from performing a comprehensive General Conformity Analysis and Determination, and would be considered to conform to the SIP. As new construction of cumulative project would be staggered over time and not occur all at once, dust and other emissions would be dispersed in time and location. However, each of these cumulative projects is required to comply with specific regulatory requirements that are meant to minimize construction impacts on air quality, and mitigation would be required to reduce air quality emissions to below threshold levels. Although construction emissions will not cause significant air quality impact, implementation of BCMPs, as listed in Section 3.7, and adherence to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. For these reasons, construction activities associated with this project, combined with the projects listed in Table 4-9, would not result in a significant short-term cumulative impact to air quality under CEQA.

Operational impacts generally tend to have a greater effect on cumulative conditions. However, very minimal pollutant-emitting operational activities are anticipated for the Reduced Liebert Substation Alternative. The Reduced Liebert Substation Alternative would contribute little to local air quality pollution, especially in relation to large emission sources such as industries and vehicle traffic on highways. Long-term operation of the Reduced Liebert Substation Alternative and other transmission projects would generate almost no direct emissions of air pollutants. Particulate generation from disturbed soils may continue until construction areas are revegetated. As provided in Section 3.7, there would be very little in the form of additive air quality effects resulting from the Reduced Liebert Substation Alternative. As shown in Table 4-9, the majority of projects considered for cumulative air quality analysis are also transmission or solar energy projects. These cumulative projects would also generate minimal operational air quality emissions, as described for the Reduced Liebert Substation Alternative. Other than the ongoing mining operation listed as number 42 in Table 4-9, there are no other substantial industrial or trip-generating cumulative projects that would create large quantities of air quality emissions throughout the life of the project. Therefore, the Reduced Liebert Substation Alternative during project operation would not result in a considerable contribution to cumulatively significant air quality impacts under CEQA.

Hydrology and Water Quality

Direct and Indirect Effects

As with the Proposed Action, the Reduced Liebert Substation Alternative would not violate any water quality standards or waste discharge requirements, deplete groundwater supplies or recharge, substantially alter the existing drainage pattern of the site, increase erosion or surface runoff, or degrade water quality. The Reduced Liebert Substation Alternative does not include any housing, permanent or temporary, as part of the scope of activity and placement of a transmission pole would not impede or substantially redirect flood flows. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to hydrology and water quality under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative is not anticipated to generate substantial volumes of runoff due to the small, isolated areas of impervious surfaces associated with the alternative. The nature of the transmission lines and substation operation does not result in the use or creation of discharge that could violate water quality standards. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project. The Reduced Liebert Substation Alternative is generally located throughout open space areas and would not create large impervious surfaces that could generate substantial runoff or wastewater in the immediate vicinity of other cumulative projects throughout the watershed. In addition, the Reduced Liebert Substation Alternative is not located in proximity to any large natural waterway that might be altered by the project. The nature of the project itself does not result in the creation of large volumes of wastewater or runoff. Any impacts to water quality would be temporary and minor and have only localized affects.

It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the Reduced Liebert Substation Alternative. As with the Proposed Action, the Reduced Liebert Substation Alternative and other cumulative development projects would require compliance with an RWQCB-approved SWPPP that results in construction and operation consistent with the goals and standards of the Colorado River Basin Plan for the project and other cumulative projects throughout the basin. In addition, most development projects are subject to NPDES regulations, which require source and nonpoint source BMPs to control potential effects on water quality. Compliance with applicable

regulations minimizes the potential for cumulative impacts from the Reduced Liebert Substation Alternative and other projects throughout the watershed. For these reasons, construction of the projects identified in Table 4-10 combined, with or without the Reduced Liebert Substation Alternative, would not result in a significant adverse cumulative water quality impact or hydrology under CEQA.

Health and Safety/Hazardous Materials

Direct and Indirect Effects

As with the Proposed Action, the Reduced Liebert Substation Alternative would not require use of new types of hazardous materials beyond those currently used at the existing substations. Additionally, IID would ensure compliance with any applicable rules and regulations, implement its standard operational procedures and protocols, including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. There are no schools located within one-quarter mile of the Reduced Liebert Substation Alternative and no hazardous material sites were identified within 0.5 mile of the project area. The Reduced Liebert Substation Alternative would not result in a safety hazard for people residing or working in the project area due to the distance from area airports. The Reduced Liebert Substation Alternative is generally located through undeveloped open space areas that are not densely populated and would not require significant evacuation operations in an emergency situation. The risk of wildland fires in the project area is considered low as the project area is not located in an area defined as high risk for fire hazards. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to health and safety/ hazardous materials under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative is located throughout an area mostly surrounded by open space and generally not close to developed areas. Vehicles and equipment used for construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. The operation of the expanded substations and new transmission line would not require use of new types of hazardous materials beyond those used currently at the existing substations, such as petroleum products (fuels), lubricants, solvents, and other common industrial chemicals. Under the IID Environmental, Regulatory & Emergency Planning Section, the District conducts proactive hazardous materials and waste handling, storage, and disposal in compliance with all regulatory requirements with a

goal of pollution prevention and resource conservation. IID would ensure compliance with all environmental regulations managed by the Imperial County Departments of Public Health. IID would ensure compliance with any applicable rules and regulations, including the State of California CCR Title 23 Health and Safety Regulations. Further, the Reduced Liebert Substation Alternative is not within one-quarter mile from any schools or airports, and is generally located in undeveloped and sparsely populated areas. The project would not combine with other projects to result in cumulatively considerable public safety impacts to schools, airports, or emergency operations. The sparsely vegetated desert landscape surrounding the project is not considered to be a high risk for wildfires, and the project is not near a wildland or urban interface. The project would have low potential for wildland fire impacts, and other projects in the immediate area would also have a low risk due to the sparse desert vegetation. While projects as identified in Table 4-11 may include components that extend close to populated facilities that could result in cumulative impacts to health and safety, the Reduced Liebert Substation Alternative is not located near any such facilities and would not contribute considerably to a significant cumulative impact.

Cumulative projects are not anticipated to occur within the areas immediately adjacent to the Reduced Liebert Substation Alternative. As noted in Section 3.9, there are no hazardous waste sites within 0.5 mile of any project component. Thus, the likelihood for a hazardous material impact from the Reduced Liebert Substation Alternative to combine with another cumulative project in the area to result in a significant cumulative impact related to hazardous materials is low. In addition, like the Reduced Liebert Substation Alternative, other cumulative projects would be required to meet all Federal, state, and local regulations regarding proper handling, transport, storage, and use of hazardous materials, thus further minimizing any potential cumulative hazardous material impact. For these reasons, the projects identified in Table 4-11 combined, with or without the Reduced Liebert Substation Alternative, would not result in a significant adverse cumulative hazardous materials impact under CEQA.

Reduced Liebert Substation Alternative

Cultural Resources

Direct and Indirect Effects

As described in Section 2.5, the Reduced Liebert Substation Alternative would reduce the proposed Liebert Substation in size to 400 feet by 500 feet. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The

Reduced Liebert Substation Alternative would re-position the smaller substation north of the preferred location, immediately south of the point at which the transmission line makes a right-angled turn from a north-south orientation to an east-west orientation.

Under the Reduced Liebert Substation, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action. Only the Liebert Substation would be reduced in size and re-positioned north of the preferred location. As such, the Reduced Liebert Substation Alternative would not result in permanent adverse impacts to cultural resources. Therefore, implementation of the Reduced Liebert Substation Alternative would not result in cumulative direct or indirect effects to cultural resources under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not impact cultural resources. The Reduced Liebert Substation Alternative would not result in cumulative impacts with regards to cultural resources under CEQA.

Paleontological Resources

Direct and Indirect Effects

The Reduced Liebert Substation Alternative may have direct and indirect impacts during construction and operational repairs. In order to avoid impacts to paleontological resources, mitigation measures PR-A through PR-C are provided. The Reduced Liebert Substation Alternative's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of mitigation measures. With implementation of mitigation measures, the Reduced Liebert Substation Alternative would not result in incremental contribution to a cumulative paleontological resources impact under NEPA.

CEQA Significance Determination

Mitigation measures PR-A through PR-C, as provided in Section 3.11, Paleontological Resources, and compliance with existing regulations, require a qualified paleontologist to consult with grading and excavation contractors prior to commencement of ground-disturbing activities. Further, in the event that paleontological resources are encountered during ground-disturbing activities, all work will be redirected until the resource can be assessed and/or recovered. The

procedures for monitoring, investigating, and taking further action, if required, will follow BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources." Implementation of mitigation measures would ensure a less-than-significant impact. As such, the Reduced Liebert Substation Alternative would not contribute to a significant cumulative impact to paleontological resources under CEQA.

Socioeconomic Conditions and Environmental Justice

Direct and Indirect Effects

The Reduced Liebert Substation Alternative would reduce the proposed Liebert Substation in size to 400 feet by 400 feet. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The Reduced Liebert Substation Alternative would re-position the smaller substation north of the preferred location, immediately south of the point at which the transmission line makes a right-angled turn from a north-south orientation to an east-west orientation.

Under the Reduced Liebert Substation, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action. Only the Liebert Substation would be reduced in size and re-positioned north of the preferred location. As such, the project would be located along an existing boundary and would not result in a new feature that would divide an established community or result in a future change to the area. The Reduced Liebert Substation Alternative would not directly or indirectly affect an established community by inducing substantial population growth or displacing a substantial numbers of housing or existing people. While there would be increased employment during the construction period, the direct and indirect effects would be minimal and beneficial. There will be no employment associated with operation of the implementation of the Reduced Liebert Substation Alternative. As such, implementation, for construction and operations, of the Reduced Liebert Substation Alternative would not result in direct or indirect effects to socioeconomics.

Adverse effects related to environmental justice under this alternative would be the same as those described for the Proposed Action. No permanent or temporary environmental justice adverse effects would result.

CEQA Significance Determination

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not induce substantial population growth during construction or operations. The Reduced Liebert Substation Alternative would not displace substantial numbers of existing housing during construction or operations. The Reduced Liebert Substation Alternative would not displace substantial numbers of people during construction or operations. For these reasons, the Reduced Liebert Substation Alternative would not result in significant cumulative impacts under CEQA.

Transportation and Traffic

Direct and Indirect Effects

Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from the Reduced Liebert Substation Alternative, construction vehicles would have a minimal effect on the local roadway system. This level of use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards. The Reduced Liebert Substation Alternative would not cause a change in air traffic patterns, levels, or locations or directly affect any public or private roadways in the project area. The Reduced Liebert Substation Alternative would not affect existing emergency access in the vicinity of the project and only require temporary construction parking, which would primarily occur within the IID 140-foot-wide ROW. Construction, operation, and maintenance of the line would have no effects that could affect alternative transportation modes, because the only traffic that would be generated would be during construction. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to transportation and traffic under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative is located in a rural area with few public roads and little traffic. Part of this area is built-out with agricultural uses, while most of the remainder of the project area consists of federally owned public lands in use for recreational pursuits. This area is not expected to experience any substantial changes related to transportation in the foreseeable future because of the existing land uses currently in place and the cumulative projects do not include substantial long-term traffic-generating components. For these reasons,

the projects identified in Table 4-13 combined, with or without the Reduced Liebert Substation Alternative, would not result in a significant adverse cumulative traffic impact under CEQA.

As with the Proposed Action, the Reduced Liebert Substation Alternative would involve minor temporary increases in traffic that would only affect the immediate project vicinity and only over a limited period of time while the project is being constructed. Traffic and transportation impacts from the Reduced Liebert Substation Alternative would primarily consist of those associated with construction activities. Once constructed, IID personnel would only travel to this area to conduct routine maintenance along the transmission line ROW. For these reasons, the Reduced Liebert Substation Alternative would have a very minor incremental effect on transportation and traffic in this area that would not be cumulatively considerable under CEQA.

The construction, operation, and maintenance of the Reduced Liebert Substation Alternative would require heavy vehicle access to the structure sites. Access would be via the proposed transmission line ROW. The proposed ROW is 140 feet and the travel route would be 16 feet within the ROW. Access to the work areas within the ROW would be via the ROW access road and from existing private roads in the project area. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. This impact was found to be less than significant under CEQA.

As with the Proposed Action, the Reduced Liebert Substation Alternative would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations. The Proposed Action would not directly affect any public or private roadways in the project area or change any design features associated with these roadways. For these reasons, the project was found to have no impact involving changing air traffic patterns and roadway design features or incompatible uses under CEQA.

As with the Proposed Action, the Reduced Liebert Substation Alternative would not affect existing emergency access in the vicinity of the project. No direct impacts to roadway facilities would occur. Short-term traffic associated with movement of construction equipment would be generated, but the number of vehicles would not be substantial and would only occur during project construction. For these reasons, the project was found to have less-than-significant impacts on emergency access under CEQA.

Therefore, no significant impact under CEQA is identified for this issue area. The cumulative projects would not otherwise cause an increase in traffic, which is substantial in relation to the

existing traffic load and capacity of the street system; substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; result in inadequate parking capacity; or, conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Recreation

Direct and Indirect Effects

CEQA Significance Determination

The Reduced Liebert Substation Alternative would be located within an area currently designated by the BLM's CDCA as Utility Corridor "N." The purpose of the Utility "N" Corridor is to provide a designated area within the BLM lands for utility structures such as transmission lines and to group these utilities together in one area rather than allow utilities to be scattered throughout BLM lands.

The entire transmission line corridor site is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use). The Limited Use designation is suitable for recreation "...which generally involves low to moderate use densities." The Limited Use designation also limits all motorized travel to designated routes. Utility Corridor "N" is not designated for OHV recreation; however, the BLM lands located adjacent to the Utility Corridor "N" can be used for OHV recreation. With the installation of the transmission line corridor within the designated Utility Corridor "N", the Reduced Liebert Substation Alternative would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be minimized.

The Reduced Liebert Substation Alternative would construct a maintenance road within the BLM lands that could potentially be used as a corridor for OHV use. This road would intersect with other existing BLM and County roads that cross the proposed transmission line corridor. The new maintenance road would connect with existing routes used for OHV access to the vicinity and would potentially result in the creation of additional routes by OHV use. The construction of the transmission line corridor proposed under the Reduced Liebert Substation Alternative would not directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas; substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal,

State, local, or private recreation facilities or wilderness areas; or, diminish the enjoyment of existing recreational opportunities.

The Reduced Liebert Substation Alternative does not involve the construction of recreation facilities. Furthermore, the Reduced Liebert Substation Alternative would not contain a residential component, therefore, it would not increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated and would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in the County of Imperial.

Special Designation

Direct and Indirect Effects

As with the Proposed Action, the Reduced Liebert Substation Alternative would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, the Reduced Liebert Substation Alternative's incremental cumulative impact would be minimal and mitigated. The Reduced Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under NEPA.

CEQA Significance Determination

The Reduced Liebert Substation Alternative would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, the Reduced Liebert Substation Alternative's incremental cumulative impact would be minimal and mitigated. The Reduced Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

No Liebert Substation Alternative

Land Use

Direct and Indirect Effects

As described in Section 2.6, the No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. This alternative would remove the 14.38 acres of disturbance within the FTHL MA associated with the Liebert Substation.

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action except no Liebert Substation would be constructed. The transmission line corridor site would be located within BLM land designated as Utility Corridor “N”. As with the Proposed Action, the No Liebert Substation Alternative would not be located within or along the boundary of any existing residential or community uses. Land use policies relevant to the No Liebert Substation Alternative would be the same as the Proposed Action’s land use policies listed in Table 3.1-1. Therefore, as discussed in the analysis above, the No Liebert Substation Alternative would not directly or indirectly affect an established community, require any change in land use designations, or conflict with the FLMPA, CDCA, or other applicable land use plans. As such, implementation of the No Liebert Substation Alternative would not result in cumulative direct or indirect effects to land use under NEPA.

CEQA Significance Determination

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not impact an established community.

The No Liebert Substation Alternative would have the same potential as the Proposed Action to cause an impact within an FTHL Management Area. However, this alternative would reduce the area of disturbance within the FTHL MA by 9.79 acres, to 4.59 acres of disturbance associated with the Liebert Substation. Mitigation measures for biological resource impacts within the FTHL Management Area would be the same as required in Section 3.5 for the Proposed Action. Implementation of mitigation measures would result in less-than-significant impacts under CEQA.

Agriculture

Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action except the Liebert Substation would not be constructed. As such, direct adverse effects associated with placement of the transmission line poles and the maintenance road would be less than the Proposed Action and Reduced Liebert Substation Alternative. Additionally, these adverse effects only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed.

CEQA Significance Determination

The No Liebert Substation Alternative would remain the same as the Proposed Action and would completely remove the proposed Liebert Substation. The No Liebert Substation Alternative would have fewer impacts than the Proposed Action and Reduced Liebert Substation Alternative. As such, the No Liebert Substation Alternative would not permanently change the existing land use within the proposed transmission line ROW. No other changes would occur from the No Liebert Substation Alternative that would permanently change the existing land use within the project alignment or in adjacent areas. Because the Proposed Action would provide reliability through redundancy for existing transmission services, no additional impacts related to permanent conversion of farmland to nonagricultural use would occur. The No Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to agriculture under CEQA.

Soils and Geology

Direct and Indirect Effects

Under the No Liebert Substation Alternative, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action. However, the Liebert Substation would not be constructed. The potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides would be reduced with proper engineering and design of transmission poles and substation components in accordance with all applicable seismic standards.

Under the No Liebert Substation Alternative, construction would disturb new areas and expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the expanded substation; however, soil disturbance would generally occur in small isolated areas and the majority of these areas would be covered in concrete, restored to their original condition, or leveled in such a manner that does not increase erosion potential. The expansion of the Dixieland Substation would be located on relatively flat land and would not require substantial earthwork that could induce or accelerate geologic hazards. Therefore, the potential for geologic instability due to the No Liebert Substation Alternative, including off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, would not result in adverse effects. Proper engineering and distance from other structures and human activity would not create a substantial risk to life or property. Additionally, no adverse impact to the capability of the soils to support waste water disposal would occur. As discussed in further detail below, the No Liebert Substation Alternative would have no direct and indirect adverse effects to soils and geology under NEPA.

CEQA Significance Determination

Similar to the Proposed Action, this alternative would likely experience various types of ground movement due to seismic activity originating on local and/or regional faults during its operational lifetime. As described in the analysis for the Proposed Action, there are multiple regulatory codes and design standards related to the engineering and construction of structures to minimize damage due to seismic activity that would be required of the project. The No Liebert Substation Alternative would place transmission poles and substations in locations that are not near other structures or in immediate proximity to areas inhabited or frequently used by humans. The potential for adverse effects or harm to people or structures from seismic-related impacts to this alternative is considered minimal, as project components would generally be located in unpopulated areas away from areas of high human use or habitation.

Components of this alternative and the Proposed Action are basically identical, with the elimination of the Liebert Substation. As described for the Proposed Action, construction of the No Liebert Substation Alternative would disturb new areas and expose soils for staging purposes, excavation of pole foundations, access roads, and clearing of the sites for the expanded substation. During all construction activities, standard best management practices and soil erosion measures would be implemented to further reduce erosion potential. Because soil disturbance would occur in small areas and the majority of these areas would be covered in concrete, restored to their original condition, or leveled in such a manner that does not increase

erosion potential, the potential for this alternative to cause substantial soil erosion or loss of topsoil is considered less than significant.

Like the Proposed Action, this project alternative does not include the use of septic tanks or alternative waste water disposal systems. Thus, there would be no impact relative to the capability of the soils to support waste water disposal.

In addition, potential for cumulative geologic or soils impacts is limited by the standard requirements for seismic and geologic safety that must be met by projects, such as those required by the UBC, CBC, and industry standards. For these reasons, the Proposed Action would not contribute to a significant cumulative geology and soils impact under CEQA.

Visual Resources

Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action except no Liebert Substation would be constructed.

The transmission line poles would primarily affect views to the southeast from travelers eastbound on I-8. Recreationists in the easterly portions of the Yuha Basin would also be able to view the transmission lines. While scenic views are currently available from I-8, these views are affected by intrusions of existing transmission towers and by desert lands disturbed by now-fallow agricultural plots and by off-highway vehicle use. Thus, much of the natural character and scenic quality of the area has been reduced and the project area does not represent an area of natural scenic beauty.

Short- and long-term direct and indirect effects; and irreversible and irretrievable commitments of resources to the visual character, scenic vista, scenic resources, or light and glare of the affected landscape from the No Liebert Substation Alternative would be very similar to the effects from the Proposed Action. As such, the impacts from the No Liebert Substation Alternative would be less than significant, and would be compatible with the BLM VRM objectives for Class III. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to visual resources under NEPA.

CEQA Significance Determination

As described above, the No Liebert Substation Alternative would primarily affect views from eastbound I-8 to the southeast. The impact to views from I-8 would be different than the Proposed Action alignment in that it would have less of an impact on views of open desert and would primarily impact mid-range views of agricultural lands. Therefore, the impact of the No Liebert Substation Alternative on a scenic vista would be less than significant.

As with the Proposed Action, the portion of I-8 that is eligible for designation as a State Scenic Highway is a minimum of approximately 14 miles west of the project site. Therefore, no impact to a State Scenic Highway would result from the No Liebert Substation Alternative.

As with the Proposed Action, the No Liebert Substation Alternative would be located in an area consisting primarily of agricultural land and open desert. The impact to views from I-8 would not be substantially different than the Proposed Action alignment and would similarly be affected by intrusions of existing transmission towers and by desert lands disturbed by now-fallow agricultural plots and by off-highway vehicle use. Therefore, the impact of the No Liebert Substation Alternative on existing visual character or quality of the site would be less than significant.

Similar to the Proposed Action, the No Liebert Substation Alternative's transmission line would not require lighting. Since no Liebert Substation is proposed, no security lighting would be required. Construction activities would only occur during daylight hours. Therefore, there would be no impacts related to lighting or glare.

Though there are many cumulative projects that are altering the visual environment of the region, the Proposed Action would not contribute considerably to a significant cumulative impact under CEQA on visual resources because of its location in remote areas with minimal viewers.

Biological Resources

Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. This alternative would remove the 14.38 acres of disturbance within the FTHL MA associated with the Liebert Substation. As such, potential impacts to biological

resources for the No Liebert Substation Alternative would be similar to those discussed for the Proposed Action.

Special-Status Plants

Potential impacts under the No Liebert Substation Alternative to special-status plants would be similar to those discussed for the Proposed Action. Thurber's pilostyles was detected as a parasitic plant on indigo bush at two locations within the BRSA. Two of these sites were located within the buffer area of the No Liebert Substation Alternative, and one site was located within the footprint of the existing Imperial Valley Substation. Ribbed crypthantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the No Liebert Substation Alternative alignment. Even though the CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very endangered" in California, Mitigation Measure BIO-A would be required to reduce impacts to a less-than-significant level.

BUOW

Potentially significant direct and indirect impacts to BUOW could result from construction and operation/maintenance of the No Liebert Substation Alternative if BUOW were to occupy burrows within the footprint prior to implementation of the project. Per CBOC protocol preconstruction surveys will be conducted prior to any ground-disturbing activities. The entire project footprint will be walked and surveyed for BUOW. Suitable habitat within 150 meters of the ROW will also be surveyed. Active burrows will be flagged. If any BUOW are detected during preconstruction surveys, Mitigation Measure BIO-B will be implemented to reduce the potential impacts to a less than-significant level.

Flat-Tailed Horned Lizards

Direct permanent and temporary impacts to FTHL-occupied habitat would occur because a portion of the No Liebert Substation Alternative runs through the Yuha Management Area. Since a portion of the No Liebert Substation Alternative runs through an FTHL MA, mitigation for direct permanent impacts would be required. As indicated in Table 3.5-3, 179.75 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. However, only a portion of these acreages, consisting of dirt access roads, transmission pole locations, staging areas, etc., would be permanently impacted. Mitigation measures BIO-C and BIO-D would be required to reduce impacts to a less-than-significant level.

Mountain Plover

The No Liebert Substation Alternative primarily parallels the Proposed Action alignment and results in no impacts to the plover. The native Yuha Desert does not support mountain plover which prefer active agricultural fields. The absence of the MOPL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to MOPL from construction and operation/maintenance of the No Liebert Substation Alternative. However, since the MOPL is proposed for federal listing, USFWS may require conservation measures to address loss of foraging habitat. This would be discussed in coordination with USFWS, and any conservation measures would be determined at that point.

Southwestern Willow Flycatcher

The No Liebert Substation Alternative primarily parallels the Proposed Action alignment and impacts would be very similar. Suitable SWFL foraging habitat exists around the No Liebert Substation Alternative; however, no SWFL were detected within the 1,000-foot survey buffer around the No Liebert Substation Alternative. The absence of the SWFL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to SWFL from construction and operation/maintenance of the No Liebert Substation Alternative. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

Impacts to other sensitive wildlife species by construction and maintenance of the No Liebert Substation Alternative would be similar to those described previously for the Proposed Action and are considered potentially significant. Both permanent and temporary indirect impacts may include habitat fragmentation, edge effects, increased noise levels, changes in hydrology, introduction of exotic species, artificial lighting, fugitive dust, alternation of fire regimes, increased predation rates, avian collision and electrocution, and others. Implementation of Mitigation Measure BIO-E is required to reduce those impacts to a less-than-significant level.

Habitats

Similar to the Proposed Action, the No Liebert Substation Alternative intersects sensitive vegetation communities that are associated with wetland features. These vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and

access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement.

As indicated in Figure 3.5-7, implementation of the No Liebert Substation Alternative has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. Depending on the final locations for the pole structures and access road, IID may be required to secure a permit from USACE to perform construction work within these areas. If a permit is required, implementation of permit conditions would be required to address impacts to these areas. This is a potentially significant impact and mitigation would be required. Mitigation measure BIO-G would be required to reduce impacts to a less-than-significant level.

CEQA Significance Determination

Special-Status Plants

As discussed above, potential impacts under the No Liebert Substation Alternative to special-status plants would be similar to those discussed for the Proposed Action. Thurber's pilostyles was detected as a parasitic plant on indigo bush at two locations within the BRSA. Two of these sites were located within the buffer area of the No Liebert Substation Alternative, and one site was located within the footprint of the existing Imperial Valley Substation. Ribbed crypthantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the No Liebert Substation Alternative alignment. Even though the CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very endangered" in California, Mitigation Measure BIO-A would be required to reduce impacts to a less-than-significant level.

BUOW

As previously discussed, potentially significant direct and indirect impacts to BUOW could result from construction and operation/maintenance of the No Liebert Substation Alternative if BUOW were to occupy burrows within the footprint prior to implementation of the project. Per CBOC protocol preconstruction surveys will be conducted prior to any ground-disturbing activities. The entire project footprint will be walked and surveyed for BUOW. Suitable habitat within 150 meters of the ROW will also be surveyed. Active burrows will be flagged. If any

BUOW are detected during preconstruction surveys, Mitigation Measure BIO-B will be implemented to reduce the potential impacts to a less than-significant level.

Flat-Tailed Horned Lizards

As discussed above, direct permanent and temporary impacts to FTHL-occupied habitat would occur because a portion of the No Liebert Substation Alternative runs through the Yuha Management Area. Since a portion of the No Liebert Substation Alternative runs through an FTHL MA, mitigation for direct permanent impacts would be required. As indicated in Table 3.5-3, 179.75 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. However, only a portion of these acreages, consisting of dirt access roads, transmission pole locations, staging areas, etc., would be permanently impacted. Mitigation Measures BIO-C and BIO-D would be required to reduce impacts to a less-than-significant level.

Mountain Plover

As previously discussed, the No Liebert Substation Alternative primarily parallels the Proposed Action alignment and results in no impacts to the plover. The native Yuha Desert does not support mountain plover which prefer active agricultural fields. The absence of the MOPL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to MOPL from construction and operation/maintenance of the No Liebert Substation Alternative. However, since the MOPL is proposed for federal listing, USFWS may require conservation measures to address loss of foraging habitat. This would be discussed in coordination with USFWS, and any conservation measures would be determined at that point.

Southwestern Willow Flycatcher

As previously discussed, the No Liebert Substation Alternative primarily parallels the Proposed Action alignment and impacts would be very similar. Suitable SWFL foraging habitat exists around the No Liebert Substation Alternative; however, no SWFL were detected within the 1,000-foot survey buffer around the No Liebert Substation Alternative. The absence of the SWFL from within the 1,000-foot buffer would indicate that the project would not have a significant direct or indirect impact to SWFL from construction and operation/maintenance of the No Liebert Substation Alternative. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

As discussed above, impacts to other sensitive wildlife species by construction and maintenance of the No Liebert Substation Alternative would be similar to those described previously for the Proposed Action and are considered potentially significant. Both permanent and temporary indirect impacts may include habitat fragmentation, edge effects, increased noise levels, changes in hydrology, introduction of exotic species, artificial lighting, fugitive dust, alternation of fire regimes, increased predation rates, avian collision and electrocution, and others. Implementation of Mitigation Measure BIO-E is required to reduce those impacts to a less-than-significant level.

Similar to the Proposed Action, the No Liebert Substation Alternative intersects sensitive vegetation communities that are associated with wetland features. These vegetation communities have a potential to be impacted during construction from staging of equipment and materials, and creation of new access roads. Depending on the final locations for the transmission line poles and access road, IID may be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement. This is a potentially significant impact and mitigation is required. Mitigation measure BIO-F would be required to reduce impacts to a less-than-significant level.

Implementation of the No Liebert Substation Alternative has the potential to impact waters of the U.S. that would be subject to Federal protection. If poles or portions of the maintenance road would be located within waters of the U.S. or wetlands, the construction and maintenance of such facilities would have the potential to have substantial adverse effects to the water quality of those waters and/or the loss of area. Depending on the final locations for the pole structures and access road, IID may be required to secure a permit from USACE to perform construction work within these areas. If a permit is required, implementation of permit conditions would be required to address impacts to these areas. This is a potentially significant impact and mitigation would be required. Mitigation measure BIO-G would be required to reduce impacts to a less-than-significant level.

The No Liebert Substation Alternative would have similar impacts as described for the Proposed Action. Portions of the project site are within a management area for FTHL (including FTHL territories) and has suitable breeding habitat on-site. FTHL have large home ranges for lizards their size and have been shown in past studies to have a mean home range of approximately 8.8 acres for males within the Yuha Desert (Miller 1999). The area would constitute a local movement or dispersal corridor for the species within the Yuha Desert, but it does not provide a regional corridor between management areas. Furthermore, the only permanent facilities would

be the 16-foot-wide maintenance road and the monopoles, which the FTHL could easily travel across (road) or around (poles). No major wildlife nursery sites were identified within the Proposed Action; however, numerous desert reptile, bird, and mammalian species breed in the vicinity. Some of these species, including FTHL, loggerhead shrike, BUOW, and Gila woodpecker, are considered sensitive species. These species breed or potentially breed in the vicinity of the alignment ROW and 1,000-foot survey buffer. Both permanent and temporary direct impacts would result from implementation of the No Liebert Substation Alternative as discussed previously. Mitigation measures described above for BUOW, FTHL, and other special-status species would adequately reduce these impacts to a less-than-significant level.

There are no local policies or ordinances involving biological resources that would be relevant to this project. No impacts would result.

A number of sensitive species, including BUOW, FTHL, loggerhead shrike, northern harrier, Gila woodpecker, and others that are covered by the Imperial Valley NCCP/HCP, would potentially be impacted. However, this plan has not yet been finalized and adopted. Mitigation measures listed previously would address these potential impacts to covered species.

For the reasons stated above, the No Liebert Substation Alternative would not result in incremental cumulative biological impacts under CEQA.

Noise

Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment. Therefore, noise impacts would be similar to the Proposed Action due to its similar location in a remote area without noise-sensitive receptors located in proximity. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to noise under NEPA.

CEQA Significance Determination

Even though the No Liebert Substation Alternative would not construct the Liebert substation proposed in the Proposed Action, impacts would still be similar to the Proposed Action due to its

similar location in a remote area without noise-sensitive receptors located in proximity. This is a less-than-significant impact.

Even though the No Liebert Substation Alternative would not construct the Liebert substation proposed in the Proposed Action, the groundborne vibrations associated with the No Liebert Substation Alternative would be similar to the Proposed Action and Route Alternatives 1 and 2. Less-than-significant impacts would result.

Even though the No Liebert Substation Alternative would not construct the Liebert substation proposed in the Proposed Action, the No Liebert Substation Alternative would result in a nominal permanent increase in ambient noise levels in the project vicinity resulting from the hum of the transmission lines. Given the attenuation of noise over distances, the effect on ambient noise levels would be low and would not be considered an impact contributing to a substantial permanent increase. Furthermore, the noise would not be noticeable to any sensitive receptors. No significant increase in ambient noise levels would occur following the completion of construction; thus, there would be a less-than-significant impact.

The No Liebert Substation Alternative would result in a temporary short-term increase in ambient noise levels in the project vicinity, similar to the Proposed Action. This is a less-than-significant impact.

Cumulative projects are not located within the immediate vicinity of the No Liebert Substation Alternative site and would be outside of the geographic scope of the consideration of cumulative noise impacts. Given the sparsely developed nature of the corridor and geographic scope of this cumulative analysis, few sensitive noise receptors in the area, and the distance between the No Liebert Substation Alternative and other cumulative projects that precludes noise from combining, cumulative noise impacts are considered less than significant. Therefore, construction (short-term) and operational (long-term) noise generated by the No Liebert Substation Alternative would not contribute to cumulative noise impacts because the projects are spaced far enough apart that the noise generated by one project will not substantially combine with the noise of another project.

Air Quality

Direct and Indirect Effects

Similar to the Proposed Action, the operation of the transmission line under the No Liebert Substation Alternative would generate emissions considered to be negligible. Operation emissions are considered to be negligible because the primary source of emissions would be from maintenance vehicles used by workers to patrol the transmission line routes to visually inspect for damages and would not conflict with or obstruct the applicable air quality plan. As indicated in Table 3.7-6, daily construction emissions are well below the ICAPCD significance thresholds for construction activities. Similarly, annual emissions are well below the GCR *de minimis* level for the SSAB; therefore, under the No Liebert Substation Alternative, the project is considered exempt from performing a comprehensive General Conformity Analysis and Determination, and would be considered to conform to the SIP. Additionally, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations.

The SSAB is designated as nonattainment for 8-hour O₃ and PM₁₀. During construction, there will be a temporary increase of O₃ and PM₁₀ pollutants for which the region is classified as nonattainment. However, this is a temporary increase. Operational emissions will not have a considerable net increase of any criteria pollutants. As such, the implementation of the proposed project is not expected to delay the attainment of the O₃ and PM₁₀ standards.

Most of the construction emissions, including odors, which would be associated with the No Liebert Substation Alternative would occur in remote and rural areas that should not affect sensitive receptors. A review of aerial photography for the project area surrounding the project area shows that this area has a very low residential population with no other sensitive receptors nearby (i.e., schools, hospitals, residences) located near the ROW. After construction of the No Liebert Substation Alternative, emissions associated with maintenance activities would be expected to be generated from the operation of maintenance vehicles driven along the transmission line route to visually inspect for damages, and therefore are considered negligible. The emissions generated from the construction of the electrical transmission system would not expose nearby sensitive receptors to substantial pollutant concentrations.

GHG emissions would occur only during project construction. Because those emissions would be temporary in nature and minor in magnitude, there would not be any significant exposure of people to risks associated with global climate change.

The No Liebert Substation Alternative would have similar effects to construction and operational emissions associated with criteria pollutants, odors, and GHG as the Proposed Action. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to air quality under NEPA.

CEQA Significance Determination

Similar to the Proposed Action, the operation of the transmission line under the No Liebert Substation Alternative would generate emissions considered to be negligible. Therefore, air quality impacts from operation of the No Liebert Substation Alternative would be less than significant.

Under the No Liebert Substation Alternative, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action; however, the Liebert Substation would be eliminated. As with the Proposed Action, annual emissions for the No Liebert Substation Alternative are well below the GCR *de minimis* level for the SSAB; therefore, under the No Liebert Substation Alternative, the project is considered exempt from performing a comprehensive General Conformity Analysis and Determination, and would be considered to conform to the SIP.

Operational emissions will not have a considerable net increase of any criteria pollutants. As such, the implementation of this alternative is not expected to delay the attainment of the O₃ and PM₁₀ standards. This is a less than significant impact.

Most of the construction that would be associated with the No Liebert Substation Alternative is in remote and rural areas that should not affect sensitive receptors. The emissions generated from the construction of the electrical transmission system would not expose nearby sensitive receptors to substantial pollutant concentrations. Thus, impacts from construction and operation of the No Liebert Substation Alternative would be less than significant.

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. These odors would be temporary and would not affect a substantial number of people. The No Liebert Substation Alternative runs through rural and undeveloped land away from all sensitive receptors; therefore, any odor emitted would most likely only be detected by workers. Therefore, the construction and operation of this alternative would not create objectionable odors affecting a substantial number of people. Thus, odor

impacts from construction and operation of the No Liebert Substation Alternative would be less than significant.

The temporary increase of emissions of GHG associated with construction activities for the No Liebert Substation Alternative will not significantly contribute incrementally to global climate change as it does not result in substantial net increases in GHGs beyond the construction phase of the project.

As described under the previous impact, GHG emissions would occur only during project construction. Because those emissions would be temporary in nature and minor in magnitude, there would not be any significant exposure of people to risks associated with global climate change. This is a less-than-significant impact.

Cumulative projects would also generate minimal operational air quality emissions, as described for the Proposed Action. There are no other substantial industrial or trip-generating cumulative projects that would create large quantities of air quality emissions throughout the life of the project. Therefore, the No Liebert Substation Alternative during project operation would not result in a considerable contribution to cumulatively significant air quality impacts under CEQA.

Hydrology and Water Quality

Direct and Indirect Effects

As described for the Proposed Action, the No Liebert Substation Alternative would require small, isolated areas of impervious surfaces associated with the two substations and individual pole locations that would not generate substantial volumes of runoff. Any waste water, including storm water runoff, produced during construction activities would be managed in accordance with an approved SWPPP, which would be required for this project and would include best management practices. The No Liebert Substation Alternative would not require any groundwater extraction during construction or operation. Implementation of the No Liebert Substation Alternative would not require the alteration of the drainage pattern or any streams or rivers, in the project area. Only very minimal impervious surfaces associated with the pole footprints would be created as part of this project.

The No Liebert Substation Alternative does not include any housing, permanent or temporary, as part of the scope of activity. At two locations, the No Liebert Substation Alternative transmission line alignment would cross over 100-year flood hazard areas associated with the Yuha Wash and

an unnamed wash (FEMA 2009). The project may be designed to specifically avoid placement of transmission poles within the hazard area. If placement of a transmission pole is required within the flood hazard area, this relatively small and thin structure would not impede or substantially redirect flood flows. The No Liebert Substation Alternative is not located in an area susceptible to seiches, tsunamis, or mudflows.

As discussed above, the No Liebert Substation Alternative would have similar effects to groundwater supplies and recharge, drainage, and surface runoff as the Proposed Action. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to hydrology and water quality under NEPA.

CEQA Significance Determination

As with the Proposed Action, the No Liebert Substation Alternative would require small, isolated areas of impervious surfaces associated with the two substations and individual pole locations that would not generate substantial volumes of runoff. Thus, the No Liebert Substation Alternative would result in a less-than-significant impact to water quality standards and waste discharge requirements.

The No Liebert Substation Alternative would not require any groundwater extraction during construction or operation. As described for the Proposed Action, only small areas of permanent impervious surfaces would be created. No impact to groundwater supplies or recharge would occur.

Similar to the Proposed Action, the No Liebert Substation Alternative would not result in a substantial increase in impervious surfaces. The drainage patterns would continue to function as they do in their existing condition, and the No Liebert Substation Alternative would result in a less-than-significant impact to drainage or erosion.

Implementation of the No Liebert Substation Alternative would not require the alteration of the drainage pattern or any streams or rivers, in the project area. Only very minimal impervious surfaces associated with the pole footprints would be created as part of this project. Any changes to the rate or amount of surface runoff would be negligible.

Similar to the Proposed Action, the No Liebert Substation Alternative would not result in substantial temporary or permanent increases in water runoff. As with the Proposed Action, any runoff generated during construction activities would be managed in accordance with an

approved SWPPP, and the No Liebert Substation Alternative would result in no impacts to existing storm water drainage systems and less-than-significant impacts to storm water quality.

The No Liebert Substation Alternative would result in only minimal changes to drainage patterns and volume of storm water runoff, as there are limited amounts of impervious surfaces that would be created. There are no project components that would create or require large volumes of water or wastewater. Thus, the extent of impacts on water quality is minimal. The No Liebert Substation Alternative would result in less-than-significant impacts to water quality.

The No Liebert Substation Alternative does not include any housing, permanent or temporary, as part of the scope of activity. No impact would occur to or within the 100-year floodplain from the placement of housing.

At two locations, the No Liebert Substation Alternative transmission line alignment would cross over 100-year flood hazard areas associated with the Yuha Wash and an unnamed wash (FEMA 2009). The project may be designed to specifically avoid placement of transmission poles within the hazard area. If placement of a transmission pole is required within the flood hazard area, this relatively small and thin structure would not impede or substantially redirect flood flows. A transmission pole structure would have a less-than-significant impact on flood flows.

As described for the Proposed Action, the No Liebert Substation Alternative would not result in the placement of people in areas subject to flooding. The majority of the No Liebert Substation Alternative components are located in areas of vacant open space with minimal flooding hazard. The nature of the project components and location of the project throughout a corridor generally not subject to flooding hazards would result in a less-than-significant risk of loss due to flooding.

The No Liebert Substation Alternative is not located in an area susceptible to seiches, tsunami, or mudflows. No impacts would result from the No Liebert Substation Alternative.

It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the No Liebert Substation Alternative. As with the No Liebert Substation Alternative, many development projects would require compliance with an RWQCB-approved SWPPP that results in construction and operation consistent with the goals and standards of the Colorado River Basin Plan for the project and other cumulative projects throughout the basin. In addition, most development projects are subject to NPDES regulations, which require source and nonpoint source BMPs to control potential effects on water quality. Compliance with applicable regulations minimizes the potential for cumulative impacts from the No Liebert Substation Alternative and other projects throughout the watershed. For these

reasons, construction of the projects identified in Table 4-10 combined, with or without the No Liebert Substation Alternative, would not result in a significant adverse cumulative water quality impact or hydrology under CEQA.

Health and Safety/Hazardous Materials

Direct and Indirect Effects

As discussed in further detail below, the operation of the expanded substations and new transmission line would not require use of new types of hazardous materials beyond those currently used at the existing substations. Additionally, IID would ensure compliance with any applicable rules and regulations, implement its standard operational procedures and protocols, including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials.

As with the Proposed Action, there are no schools located within one-quarter mile of the No Liebert Substation Alternative and no hazardous material sites were identified within 0.5 mile of the project area. The No Liebert Substation Alternative would not result in a safety hazard for people residing or working in the project area due to the distance from area airports. The project is generally located through undeveloped open space areas that are not densely populated and would not require significant evacuation operations in an emergency situation. The risk of wildland fires in the project area is considered low as the project area is not located in an area defined as high risk for fire hazards. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to health and safety/ hazardous materials under NEPA.

CEQA Significance Determination

As with the Proposed Action, operation of the expanded substations and new transmission line would not require use of new types of hazardous materials beyond those used currently at the existing substations, such as petroleum products (fuels), lubricants, solvents, and other common industrial chemicals. Additionally, IID would ensure compliance with any applicable rules and regulations, implement its standard operational procedures and protocols, including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials.

There are no schools located within one-quarter mile of the No Liebert Substation Alternative. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

No hazardous material sites were identified within 0.5 mile of the project area. Therefore, impacts related to hazardous materials sites would be less than significant.

As with the Proposed Action, the nearest public airport facility is more than 10 miles from the project area and proposed transmission alignment. IID will comply with the requirements contained in the CALTRANS Encroachment Permits Manual for the portions of the proposed transmission line that extends across the I-8 freeway and for those supporting poles that are in close proximity to the I-8 freeway right-of-way. The new substation components and transmission poles would not result in a safety hazard for people residing or working in the project area due to the distance from area airports. Therefore, no impacts are anticipated to occur related to this issue.

Cumulative projects are not anticipated to occur within the areas immediately adjacent to the project alignment or substations. Thus, the likelihood for a hazardous material impact from the Proposed Action to combine with another cumulative project in the area to result in a significant cumulative impact related to hazardous materials is low. In addition, other cumulative projects would be required to meet all Federal, state, and local regulations regarding proper handling, transport, storage, and use of hazardous materials, thus further minimizing any potential cumulative hazardous material impact. For these reasons, the cumulative projects combined with or without the Proposed Action would not result in a significant adverse cumulative hazardous materials impact under CEQA.

Cultural Resources

Direct and Indirect Effects

As described in Section 2.5, the No Liebert Substation Alternative would eliminate development of the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment.

Under the No Liebert Substation, the transmission line route and Dixieland Substation would follow the same approximate alignment as the Proposed Action. Only the Liebert Substation would be eliminated. As such, the No Liebert Substation Alternative would not result in permanent adverse impacts to cultural resources. Therefore, implementation of the No Liebert Substation Alternative would not result in cumulative direct or indirect effects to cultural resources under NEPA.

CEQA Significance Determination

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not impact cultural resources. The No Liebert Substation Alternative would not result in cumulative impacts with regards to cultural resources under CEQA.

Paleontological Resources

Direct and Indirect Effects

The No Liebert Substation Alternative may have direct and indirect impacts during construction and operational repairs. In order to avoid impacts to paleontological resources, mitigation measures PR-A through PR-C are provided. The No Liebert Substation Alternative's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of mitigation measures PR-A through PR-C. With implementation of mitigation measures PR-A through PR-C, the No Liebert Substation Alternative would not result in cumulative direct or indirect paleontological resources impact under NEPA.

CEQA Significance Determination

Mitigation measures, as provided in Section 3.11, Paleontological Resources, and compliance with existing regulations, require a qualified paleontologist to consult with grading and excavation contractors prior to commencement of ground-disturbing activities. Further, in the event that paleontological resources are encountered during ground-disturbing activities, all work will be redirected until the resource can be assessed and/or recovered. The procedures for monitoring, investigating, and taking further action, if required, will follow BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources." Implementation of mitigation measures PR-A through PR-C would ensure a less-than-significant impact. As such, the No Liebert Substation Alternative would not contribute to a significant cumulative impact to paleontological resources. As such, the No Liebert Substation Alternative would not contribute to a significant cumulative impact related to paleontological resource under CEQA.

Socioeconomic Conditions and Environmental Justice

Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route and Dixieland Substation would remain the same as described under the preferred alignment.

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action except no Liebert Substation would be constructed. Therefore, as discussed in the analysis above, the No Liebert Substation Alternative would not directly or indirectly affect an established community by inducing substantial population growth or displacing a substantial numbers of housing or existing people. While there would be increased employment during the construction period, the direct and indirect effects would be minimal and beneficial. There will be no employment associated with operation of the implementation of the No Liebert Substation Alternative. As such, implementation, for construction and operations, of the No Liebert Substation Alternative would not result in direct or indirect effects to socioeconomics.

Adverse effects related to environmental justice under this alternative would be the same as those described for the Proposed Action. No permanent or temporary environmental justice adverse effects would result.

CEQA Significance Determination

As previously discussed, the No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not induce substantial population growth during construction or operations. The No Liebert Substation Alternative would not displace substantial numbers of existing housing during construction or operations. The No Liebert Substation Alternative would not displace substantial numbers of people during construction or operations. For these reasons, the No Liebert Substation Alternative would not result in incremental cumulative socioeconomic impacts under CEQA.

Transportation and Traffic

Direct and Indirect Effects

The No Liebert Substation Alternative would have similar effects to construction and operational traffic to local roadways, emergency access, and parking as the Proposed Action. The No Liebert Substation Alternative would have less than significant impacts to level of service standards, road capacity, and emergency access. There would be no impact to air traffic patterns, levels, or locations, on roadway design features and hazards, parking capacity, alternative transportation policies, plans, or programs. As such, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to transportation and traffic.

CEQA Significance Determination

The construction, operation, and maintenance of the No Liebert Substation Alternative would be very similar to the Proposed Action. Access would be via the proposed transmission line ROW. Access to the work areas within the ROW would be via the ROW access road and from existing private roads in the project area. Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system. This impact would be less than significant.

The No Liebert Substation Alternative would involve a similar amount of daily trips for construction workers and supply deliveries as the Proposed Action and would be over the same time period of 8 months. Operations and maintenance trips would also be similar. This use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards and the impact would be less than significant.

As with the Proposed Action, implementation of the No Liebert Substation Alternative would add a new transmission line in an area containing existing transmission poles and towers. This alternative would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations.

Similar to the Proposed Action, the No Liebert Substation Alternative would not directly affect any public or private roadways in the project area or change any design features associated with these roadways. The transmission line would be constructed over I-8 and Evan Hewes Highway consistent with Caltrans and Imperial County standards. The transmission line would not result

in a new land use that would be incompatible with the roadway system. For these reasons, this alternative would have no impact involving a roadway design feature or incompatible uses.

The No Liebert Substation Alternative would not affect existing emergency access in the vicinity of the project. No direct impacts to roadway facilities would occur. Short-term traffic associated with movement of construction equipment would be generated, but the number of vehicles would not be substantial and would only occur during project construction. For these reasons, this alternative would have less-than-significant impacts on emergency access.

As with the Proposed Action, the No Liebert Substation Alternative would require only temporary construction parking, which would primarily occur within the IID 140-foot-wide ROW. Therefore, the project would have no impact on parking capacity.

Similar to the Proposed Action, construction, operation, and maintenance of the No Liebert Substation Alternative would have no effects that could impact alternative transportation modes, because the only traffic that would be generated would be during construction. Any subsequent operational traffic related to maintenance would be very minor, and alternative transportation programs would not be relevant. As such, there would be no impact on alternative transportation policies, plans, or programs.

For the reasons provided above, implementation of the No Liebert Substation Alternative in conjunction with applicable cumulative projects as it relates to transportation and traffic, would not result in a significant cumulative impact under CEQA.

Recreation

Direct and Indirect Effects

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action except no Liebert Substation would be constructed. As such, the No Liebert Substation Alternative would have similar effects to recreation as the Proposed Action. The No Liebert Substation Alternative would not directly and indirectly disrupting recreational activities in established Federal State, recreation areas; substantially reduce the scenic, biological, cultural, or geologic factors contributing to recreation; diminish existing recreational opportunities; increase the use of existing neighborhood or regional parks; or require the construction or expansion of recreational facilities. Therefore, the No Liebert Substation Alternative would not result in direct or indirect adverse effects to recreation under NEPA.

CEQA Significance Determination

The No Liebert Substation Alternative would have a similar alignment as the Proposed Action's transmission line corridor. As previously discussed, the alignment would be located within an area currently designated by the BLM's CDCA as Utility Corridor "N" and would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation. Impacts to recreational uses would be less than significant.

Similar to the Proposed Action, the No Liebert Substation Alternative would construct a maintenance road within the BLM lands that could potentially be used as a corridor for OHV use. This road would intersect with other existing BLM and County roads that cross the proposed transmission line corridor. The new maintenance road would connect with existing routes used for OHV access to the vicinity and would potentially result in the creation of additional routes by OHV use. The construction of the transmission line corridor proposed under the No Liebert Substation Alternative would not substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreation facilities or wilderness areas. Impacts would be less than significant.

As previously discussed above, the No Liebert Substation Alternative would include the construction of a new maintenance road. The new maintenance road would connect with existing routes used for OHV access to the vicinity and would potentially result in the creation of additional routes by OHV use. As such, the construction of the transmission line corridor may potentially enhance existing recreational opportunities. Impacts would be less than significant.

The No Liebert Substation Alternative does not involve the construction of recreation facilities and would not contain a residential component. Thus, the No Liebert Substation Alternative would not increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Impacts would be less than significant.

As previously discussed, the No Liebert Substation Alternative does not involve the construction of recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

For the reasons provided above, implementation of the No Liebert Substation Alternative in conjunction with applicable cumulative projects as it relates to transportation and traffic, would not result in a significant cumulative impact under CEQA.

Special Designation

Direct and Indirect Effects

Similar to the Proposed Action, the No Liebert Substation Alternative would not conflict, directly or indirectly, with the management goals of any special designation area. As previously discussed, the No Liebert Substation Alternative is an allowable use under the CDCA and falls within the CDCA designated Utility Corridor “N”. Any potential impacts to biological resources are in conformance with the CDCA, as discussed in Section 3.5 Biological Resources, and maintain the integrity and intent of the Conservation Plan.

CEQA Significance Determination

As with the Proposed Action, the No Liebert Substation Alternative would have direct impacts to the FTHL Management Area. Mitigation measures described in Section 3.5 Biological Resources, measures BIO-C and BIO-D, would reduce impacts within FTHL Management Area and promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy. Therefore, No Liebert Substation Alternative’s incremental cumulative impact would be minimal and mitigated. The No Liebert Substation Alternative would not otherwise result in cumulative impacts with regards to land use compatibility under CEQA.

No Action Alternative

Land Use

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to land use would result.

CEQA Significance Determination

Given that there would be no changes, the No Action Alternative would be consistent with all applicable land use laws and regulations for lands within Imperial County, including within BLM-administered lands.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no contribution to cumulative land use impacts would result.

Agriculture

Direct and Indirect Effects

Implementation of the No Action Alternative would not require any physical change to the existing and surrounding agricultural uses, conflict with existing zoning for agricultural use, or adversely affect Williamson Act contract lands. As such, there would be no direct or indirect adverse effects to agricultural resources.

CEQA Significance Determination

Under the No Action Alternative, the project would not be implemented, the new transmission line connecting the IV Substation to the Dixieland Substation would not occur, and IID would not have the ability to provide increased reliability to the Imperial Valley electric service areas. Implementation of the No Action Alternative would not require any physical change to the existing and surrounding agricultural uses, no agricultural soils would be directly affected by this alternative, and there would be no adverse effects to agricultural resources.

Even though the cumulative loss of farmland is substantial throughout the region, the No Action Alternative would not contribute to this cumulative impact. Therefore, the No Action Alternative would not contribute considerably to the potentially cumulative significant impact to agriculture.

Soils and Geology

Direct and Indirect Effects

Implementation of the No Action Alternative would not expose people to adverse effects due to seismic related hazards; result in substantial soil erosion or the loss of topsoil; cause unstable geologic conditions or lead to landslides, lateral spreading, subsidence, liquefaction, or collapse; cause risk to life or property due to the location of new structures on expansive soils; or require the use of septic tanks or alternative waste water disposal systems. As such, there would be no direct or indirect adverse effects to soils and geology.

CEQA Significance Determination

Under the No Action Alternative, there would be no ground-disturbing activities and no new facilities would be constructed that might cause people or structures to be exposed to geologic hazards. No new facilities would be constructed and no activities would occur on unstable soil or geologic features. The No Action Alternative would not expose people to adverse effects or create soil erosion due to seismic related hazards. For these reasons, the No Action Alternative would not contribute to cumulative geology and soil impacts.

Visual Resources

Direct and Indirect Effects

No new transmission line or substation improvements would be constructed under the No Action Alternative. As such, no direct or indirect effects to visual resources would result.

CEQA Significance Determination

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. There would be no changes to light or glare issues for the site and its surroundings. For this reason, there would be no impacts on scenic vistas or changes in the visual character in the project area. Therefore, No Action Alternative would not contribute to potentially cumulatively significant impacts to visual resources.

Biological Resources

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to biological resources would result.

CEQA Significance Determination

Under the No Action Alternative, there would be no construction activities within BUOW and FTHL habitat and no potential for loss of habitat. Special-status plant populations would not be affected. There would be no direct or indirect and no permanent or temporary impacts to any species. Nesting birds would not be affected. No impacts to riparian habitat or sensitive natural communities would occur. There are no local policies or ordinances involving biological resources that would be relevant to this alternative. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant impacts to biological resources.

Noise

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to noise would result.

CEQA Significance Determination

Under the No Action Alternative, the Proposed Action would not be implemented and the proposed transmission line, supporting poles, and associated substations would not be constructed. Therefore, the implementation of the No Action Alternative would not generate noise or alter existing noise levels. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant impacts to noise.

Air Quality

Cumulative Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to air quality would result and therefore no cumulative effects to air quality would result.

CEQA Significance Determination

There would be no construction activities, no project operations, and no emissions of criteria pollutants under the No Action Alternative and, thus, no contribution to cumulative pollutant levels. Therefore, the No Action Alternative would not contribute to cumulatively significant air quality impacts.

Hydrology and Water Quality

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to hydrology and water quality would result.

CEQA Significance Determination

The No Action Alternative would not change the hydrologic conditions of the area or involve construction of any new structures or facilities. No violation of water quality standards or waste discharge requirements would occur and no impact would result. The No Action Alternative would not contribute to potentially cumulatively significant impacts to water quality or hydrology.

Health and Safety/Hazardous Materials

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to health and safety or hazardous materials would result.

CEQA Significance Determination

Under the No Action Alternative, the Proposed Action would not be implemented and the proposed transmission line, supporting poles, and associated substations would not be constructed. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant health and safety or hazardous materials impacts.

Cultural Resources

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to cultural resources would result.

CEQA Significance Determination

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no contribution to cumulative cultural resource impacts would result.

Paleontological Resources

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to paleontological resources would result.

CEQA Significance Determination

Under the No Action Alternative, the Proposed Action would not be implemented or developed. No paleontological resources would be directly affected by this alternative. Therefore, no adverse effects to paleontological resources would result. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant paleontological impacts.

Socioeconomic Conditions and Environmental Justice

Direct and Indirect Effects

No new transmission line, substation and substation improvements would be implemented under the No Action Alternative. Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to socioeconomics would result. Under the No Action Alternative, no permanent or temporary adverse effects would occur; thus, no environmental justice adverse effects would result.

CEQA Significance Determination

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no impacts to population growth, either directly or indirectly, would result. Under the No Action Alternative, no displacement of existing housing would occur. No impacts related to construction of replacement housing would occur. Under the No Action Alternative, no displacement of people would occur. For these reasons, the No Action Alternative would not result in incremental cumulative impacts under CEQA.

Transportation and Traffic

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to transportation and traffic would result.

CEQA Significance Determination

Under the No Action Alternative, the project would not be implemented and no short-term or long-term traffic would be generated. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant transportation or traffic impacts.

Recreation

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to recreation would result.

CEQA Significance Determination

Under the No Action Alternative, the project would not be implemented and no short-term or long-term impacts to recreation would occur. Therefore, the No Action Alternative would not contribute to potentially cumulatively significant recreational impacts.

Special Designation

Direct and Indirect Effects

Under the No Action Alternative, no new transmission line or substation improvements would be constructed. As such, no direct or indirect effects to special designations would result.

CEQA Significance Determination

Given that there would be no changes, the No Action Alternative would be consistent with all applicable land use laws and regulations for lands within Imperial County, including within BLM-administered lands. Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no contribution to cumulative special designations impacts would result.

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